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# ***JPRS Report***

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## **Soviet Union**

### ***Economic Affairs***

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### SPECIAL NOTICE

Effective 1 June 1987 JPRS reports will have a new cover design and color, and some reports will have a different title and format. Some of the color changes may be implemented earlier if existing supplies of stock are depleted.

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The changes that are of interest to readers of this report are as follows:

USSR reports will become SOVIET UNION reports.

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The USSR REPORT: POLITICAL AND SOCIOLOGICAL AFFAIRS will be titled SOVIET UNION/POLITICAL AFFAIRS (UPA).

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- THE WORKING CLASS & THE CONTEMPORARY WORLD (UWC)
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13 JUNE 1987

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## SOVIET UNION ECONOMIC AFFAIRS

### CONTENTS

#### NATIONAL ECONOMY

##### ECONOMIC POLICY, ORGANIZATION, MANAGEMENT

Selected Material on State Acceptance of Production (SOVETSKAYA LITVA, 10 Feb 87) .....	1
Introduction of State Acceptance, by T. Petrauskas	1
Improved Production Noted, by A. Lobkov	3
Further on State Acceptance of Production (Various sources, various dates) .....	6
Precision Machine Tools, by A. Arakelyan	6
Stroyplastmass Linoleum Production, by V. Purgin	10
Heavy Industry Fittings, by V. Mirolevich	15
State Acceptance Shakes Up Television Production Plant, by S. Butkevich	20
Gains From Extradepartmental Control, by Aleksey Aleksandrovich Dontsov	24
Complaints at Carping, by L. Skoptsov	27
State Acceptance Reveals Neglect, by N. Ordinyan	30
Machine-Building Difficulties, Editorial	32
Supply Problems, Editorial	34

##### INVESTMENT, PRICES, BUDGET, FINANCE

USSR State Budget Function in Economic Restructuring Viewed (FINANSY SSSR, No 1, Jan 87) .....	37
---	----

Important Lever for Socio-Economic Development	37
Improvements in Planning Practice, by V. E. Orlov	51
Price Reform Discussions Continue	
(Various sources, various dates) .....	62
Contract Prices Attacked, by A. Boldyrev	62
Contract Prices Defended, by A. Komin	64
AGRICULTURE	
AGRO-ECONOMICS, POLICY, ORGANIZATION	
Self-Support Principle in RSFSR Experiments Examined	
(M. Kazakov; SELSKOYE KHOZYAYSTVO ROSSII, No 1, Jan 87).	70
ENERGY	
PIPELINE CONSTRUCTION, OPERATION	
Minister: Acceleration Sought in Industry	
(V. G. Chirskov; STROITELSTVO TRYBOPROVODOV, No 1, Jan 87)	78
Caspian Oil, Gas Complex Situation Studied	
(S. B. Yanushevskiy; STROITELSTVO TRUBOPROVODOV, No 1, Jan 87) .....	94
Complex Preparations for Yamal Described	
(STROITELSTVO TRUBOPROVODOV, No 1, Jan 87) .....	98

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## SELECTED MATERIAL ON STATE ACCEPTANCE OF PRODUCTION

## Introduction of State Acceptance

Vilnius SOVETSKAYA LITVA in Russian 10 Feb 87 p 2

[Article by T. Petrauskas, state acceptance manager of the "Vayras" Bicycle and Motor Plant of Shyaulayay under the rubric "State Acceptance [gospriemka]: Practice, Experience, Problems": "Approaching Order"]

[Text] In front of us are data on the results of an inspection that took place during the beginning of last year of moped V-50 engines put out by the Shyaulayay "Vayras" Bicycle and Motor Plant. Judging by them, it can be said outright that at that time, defective output at the enterprises was a regular thing. Moreover "our" inspectors from the technical control department and even the enterprise's entire collective well knew this. But defective products were disclosed in trade and even more frequently by the buyer. There was a continuous flow of complaints. As a result, nervous strain, extra costs for eliminating the defects and a difficult financial position for the plant.

In February of last year, the collegium of Gosstandart decided to temporarily stop the sale of the engines. For two weeks, a commission of the USSR Ministry of the Automotive Industry jointly with the plant's specialists looked into the reasons for the defective output. Of these, the main ones turned out to be low performance and technological discipline, the poor condition of the equipment at finishing operations, the unsatisfactory state of measuring tools and metrological instruments and insufficiently qualified specialists. Deviations from normative-technical documentation amounted to 57 percent.

The plant was immediately provided a great deal of assistance. According to an order of the minister, the enterprise was additionally assigned 10 young specialists. Capital repair of machine tools and other equipment was carried out with resources from the sector's plants and necessary funds were allotted for obtaining new special metal-cutting equipment. Related enterprises aided the Shyaulayay workers in the fabrication of tools and measuring equipment. The dispatched specialists helped to put production processes in order. At the same time, on an agreement of our minister with Gosstandart, deviations from Rostov parameters were temporarily permitted in parts of the engine and on this basis a temporary price reduction was made for the item. For the enterprise, this, of course, cost dearly. The plant, as they say, was stranded high and dry, having lost 400,000 rubles from the price reduction.

During those difficult days, representatives from Gosstandart appeared, not as part of a temporary commission, but with a permanent "residency permit." An extradepartmental control group began working by way of experiment. It faced the task of putting a stop to defective output and helping the collective eliminate it. Actually, that moment marked the start of state product acceptance.

For a start, the most troublesome parts and components were singled out. They turned out to be pistons, cylinders and crankshafts. They were inspected daily. With detection of deviations from GOST's, the parts were immediately returned for finishing.

The defective output was fixed by staying after work and on days off. But even this turned out to be insufficient. It was found necessary to punish bungling workmen through the ruble. Among those to whom monetary fines were applied were shop chiefs, representatives of technical services and specific workers.

The attitude toward state acceptance personnel varied. At first there were people who defended the former worthless work methods. There were many scowls and arguments and attempts to bypass the strict inspectors. And this is understandable--for years they had worked according to the "anything goes" principle, and getting used to order did not come easily. For example, shop No. 1 put out fastener parts which broke while being assembled. It turned out that rectification of the situation required replacement of machine-tool attachments. However, the shop's managers, including its chief, D. Volkovene, did not hurry themselves in this matter: well, if they could rid themselves of defective output up to this time, possibly they could do the same thing now. State acceptance was obliged to undertake an extreme measure, halt acceptance of the parts. Those who were to blame were strictly punished. Incidentally, I might note that we were obliged to resort to such extreme measures a number of times until the men understood that there could be no returning to the old worthless methods.

Approval of the order was greatly abetted by certification of work stations. A total of 2,610 work stations was certified; 41 were rationalized. In all the shops and services, and in each sector, open party meetings were held at which both the plant's specialists and the workers, and practically every member of the collective, had to submit to strict accounting. A self-critical, deep analysis of the state of affairs made it possible to sharply change the attitude of the people.

On the demand of state acceptance, the technical control department was strengthened and a more effective wage system was introduced for inspectors, making it directly dependent on timely detection of defective products and on observance of technological discipline. In the final analysis, the plant's personnel found it possible not only to improve the quality of already developed products but also to engage in the development of new ones. Together with specialists of the sectoral scientific-research tool institute, Vayras designers prepared and put into production an improved V-501 engine with knife shifting of speeds.

They organized work with subcontractors. A considerable portion of it was assumed by the state-acceptance apparatus. We turned to the plant's suppliers with our own proposals and comments on improving component parts. Most of them quickly caught up with those who dawdled in their work, for example, the managers of the Leningrad Carburetor Plant and Gosstandart at our request went into action. And this helped.

For almost a year the "Vayras" Plant has been operating with state acceptance of production. Improvement in the work of the collective was substantial. Today all plant products move with the first presentation. This means a reliable barrier has been put up to defective output. But getting closer to order has been proceeding slowly so far because the collective has not fulfilled the production plan for a long time. Its debt is big to product receivers. Due to this, a difficult financial position has been created here. There is only one way out of this situation--additions should be made for all in work. And high production quality and fulfillment of contractual obligations must become the rule. Only then would it be possible to ensure acceleration after boosting the work quality of each member of the collective.

#### Improved Production Noted

Vilnius SOVETSKAYA LITVA in Russian 19 Feb 87 p 2

[Article by A. Lobkov: "No 'Volume' Illusions"; first three paragraphs are source introduction]

[Text] For the fourth month, state product acceptance has been operating at the Vilnius Electric-Welding Equipment Plant. It should be noted that the plant is coping with the plan and putting out welding apparatus, and it is coping with respect to contract deliveries, but this is not coming easily.

State acceptance has created conditions in which restructuring in production has become a matter of primary importance. And the dynamics of turning over products on first presentation (improvement here, while small, is positive) shows that the production mechanism even now has been geared to quality work and is stepping up its pace. And this in its turn is changing people's psychology and leading them to the realization of the need to work in a new way.

So what changes has state acceptance actually introduced into production organization and how has it affected workers in each one's understanding of responsibility for the end result of the collective's labor? Here is what the plant's workers themselves say in this regard.

#### For All Like for Oneself

"What has changed?" Stanislav Klusovskiy, the welders' brigade leader of the 20th shop and a veteran of the enterprise, ponders. "I can say that there are changes in everything. And the main thing is that working with new quality standards is already producing serious improvements in labor organization. For example, because of irregularity in the arrival of billets from the

neighboring shop, our sector quite recently had work stoppages alternating with crash work every month. What kind of quality can you speak of when you have to put out twice as much in a shift as you would normally. Thus frames came out not welded but botched. Now the picture is different. The arrival of billets from our neighbors has become much more regular. In January not a single work stoppage occurred due to their fault. The contractors' eye, so to say, has become considerably more precise; differences in sizes of a billet relative to a blueprint is now a rarity.

"That is, in our shop, conditions are gradually coming around for normal work. This changes the men's psychology. On what level? I shall again explain by means of an example. Two years ago, I purchased a stereo receiver. And I had to haul it eight times for repair. And yet the certificate clearly shows the stamp of the production control department and the inscription reads: 'Inspected,' I paid for it 613 rubles of my hard-earned money. But although it is called 'Melodiya-106-stereo,' my family has practically heard no melodies from it. Just recently such quality problems have bothered many to the extent they affected us as consumers. But look at the one who says heatedly that it is no longer possible that things stay this way, that quality is required -- tomorrow he goes to production and simply 'does a number.'

"It is difficult, oh, with what difficulty this consumer position is broken. I am not exonerating myself. I sometimes felt that I was not working 'outstandingly.' I can honestly say that it draws one in, this atmosphere of 'give, give.' But as soon as labor organization improved, demands on quality increased so that whether you liked it or not it restructuring was required. Incidentally, most of us, possibly not quickly, but eagerly 'change' ourselves. Honestly, we have become tired of working without respect for our own labor. It has become more difficult, but then what satisfaction! It happens that you walk about in town and see some of our welding apparatus and you are drawn to approach closer and to find out how it operates, that is, simply pride in our work is making its appearance...."

"No Thoughts of Spite"....

My next interlocutor at the enterprise was Vladimir Dubodel, chief of assembly shop No 30. He, too, like the former department of technical control worker, and like the present manager of the plant subdivision, is in general what would be called a genuine production worker, well familiar with the illusory quality of achievements based on the indicator of total production-volume cost.

"True, even formerly our plant was not among the laggards," Dubodel shares his thoughts. "But sometimes we looked through our fingers at certain lapses in the work of the shops: if a unit was operating, fine. But we paid no attention to a body scratch or even a burr in an orifice. As a result, there was the feeling of the type of 'it will do as it is,' and there were complaints and claims from customers. Of course, formerly there also were various inspections. But, as a rule, they passed for the most part in order to find as many major defects as possible. And that is all. I don't know how it is at other enterprises but at our place state acceptance is gaining prestige with other methods and is not going around holding a grudge against



people. Its personnel are trying to 'catch' defective output at starting operations, which is particularly important, and to see to it that it is not repeated thereafter. They do not brandish sanctions, that is, by means of returns of all and everything. Where a defect is insignificant, they allow a certain amount of time for the elimination of the basic causes of its appearance.

"The constant daily assistance of state-acceptance personnel is tangible. Before January, when they were only accepting finished products, they tried to do it in such a way that the defective item was not included inside a unit. They keep track of the production process and check the quality of parts prior to assembly. But at the time of the new year with the introduction of shop acceptance of units and components, aid to assemblers from such control became appreciable. The fact is that formerly it was necessary to again disassemble up to three dozen assembled units, eliminate the defects and again assemble them because the defect had not been detected in time. But now cases of detection of defects in units at the end of the production chain, even where they again go through state acceptance, have been significantly reduced.

"But I shall not create for you a picture of general delight with each other and of ostentation accompanying our experiments. Control is control and, moreover, is rigid. Conflicts, albeit not frequently, do happen. But less and less frequently. So-called cosmetic dressing occurs more or less normally."

#### Accents and Percents

The changes in labor organization at the enterprise connected with shifting the stress to quality naturally could not help but affect socialist competition. I talked about this with the plant's party committee secretary, Gintautas Zhalyaskas.

"Already by the end of last year, that is, with the introduction of state acceptance, we developed a new position on labor competition. Its main difference from the former is a sharp turn toward quality. If we ignore such indispensable conditions of outstanding work as conscientiousness and the feeling of responsibility, then which of the so-called objective causes influence it? First of all regularity and efficiency of production as well as the state of the equipment. These indicators have now become determining in finding socialist-competition winners. For each production unit a quality coefficient has been established which reflects the number of products turned over by the collective on first presentation and regularity of the sector's operation.

"If in a sector the results of the month or quarter are below what was prescribed, the bonus payment to its collective is immediately reduced by half, regardless of the volume of work it might have completed. That is, if you stipulated an unconscionably produced production volume, don't get upset, your pocketbook will also suffer. In determining winners in a labor competition, the equipment shift coefficient and production efficiency are also considered. And the results of the first months of operation of the new conditions of competition show that there has been an obviously effective turnaround toward achievement of high quality."

## FURTHER ON STATE ACCEPTANCE OF PRODUCTION

## Precision Machine Tools

Yerevan KOMMUNIST in Russian 15 Feb 87 p 2

[Article by KOMMUNIST special correspondent A. Arakelyan, Kirovakan, under rubric "State Acceptance -- The Path to Quality": "New Lessons and Old Causes"]

[Text] The Kirovakan Precision Machine Tools Plant is one of the republic's enterprises at which, effective this year, state acceptance of output has been introduced. Today we talk a lot about it and we evaluate with a sense of satisfaction its contribution to improving the quality of the output. State acceptance has been called upon to set up a reliable shield against defective output. This measure will have an effect first of all on the economic indicators of the plants and factories: it is not precluded that those indicators will fall somewhat. As early as late last year, one could predict, judging from the state of readiness of production for the new form of work, which enterprises would be the first to "suffer." Unfortunately, they included the precision machine tools plant.

Judging from the statistical data for 1986 (the indebtedness for producing commercial output came to 4.37 million rubles, and there were numerous claims submitted by the customers), the people at the Kirovakan plant have hard times ahead.

The beginning of the year, actually, did not presage anything good. On 10 January: not a single machine tool had been submitted to state acceptance. On 20 January: again zero. On 24 January: the first swallows -- the state acceptance representative accepted two machine tools on the first presentation; On 25 January: two more machine tools were accepted on the second presentation. But the total number of machine tools that were shipped to the customers during the month was 45. For purposes of comparison, we might say that the monthly program is 440 machine tools.

What had happened? Could it have been that the state acceptance representatives were scrupulous in their requirements, or the plant workers themselves, knowing the low quality of their output, has simply not taken the risk of submitting their machine tools to the state acceptance court? The

answer to the question is completely different. There simply was no output, and consequently there was nothing to submit.

In machine-tool building today it is difficult to imagine a closed cycle, when the entire innards of the machine tool are produced at one and the same plant. A modern machine tool is a complicated mechanism with hundreds, if not thousands, of components that are manufactured at many other plants. And a disruption in the shipment of even a single part can lead to a disruption of production as a whole. For the people at the Kirovakan plant that is precisely the factor that was the inhibitor on the plan fulfillment. As of 2 January the plant had a shortage of 45 different cast items; 44 components; and 60 metal and nonmetal articles. As of 27 January there was a shortage of 9 cast items and 24 components. How then, one might ask, is one supposed to assemble a machine tool if, by the end of the month, the Tsentrolit Plan in Charentsavan had undershipped 150 beds, which are the basis of the machine tool.

The Electrical Engineering Plant in Aleksandriya, Kirovograd Oblast, ships electric drives for lathes with ChPU [digital program control]. Despite a need of 330 of them last year, the plan shipped only 60. In January 1987 those figures constitute, respectively, 30 and 0. It is known ahead of time that, with a quarterly need of 102, not a single electric drive will be received. And that means that today one can predict that the people at the Kirovakan plant will lag behind the plan to the extent of millions of rubles.

"As early as the middle of the month we knew that the January plan would fail," plant director E. Grigoryan says. "Taking into consideration the situation that has developed with regard to shipments, the ministry 'shaved' our plan for production of commercial output by one million rubles, but we shall not even fulfill our adjusted plan in a volume of 2.1 million rubles (this discussion was held on 28 January, when the total amount of output produced by the plant was valued at 200,000 rubles, and by the end of the month the volume of output constituted 1,354,000 rubles). We were to blame for some of this, but we were also considerably let down by our suppliers."

One cannot fail to agree with the director. Items that have also been included in the shortages are the components which have arrived at the enterprise, but the quality of which one simply does not want to discuss. For example, out of the most recent consignment of transformers produced by the Kurgan-Tyube Transformer Plant all 45 were rejected by the acceptance control; 40 out of 57 generators shipped from the Zaporozhye Electrical Apparatus Plant of the Preobrazovatel PO [industrial association] were damaged en route. The installation wires produced by Kamokabel are of very low quality and, moreover, that plant shipped, instead of 100 kilometers of wire, only 53. Out of 140 headstock housings from Tsentrolit, 80 were defective. The same fate befell all 150 aprons for the 16U0ChP machine tool. And one could give a large number of similar examples.

But probably the most curious situation occurs with the control panels for machine tools with ChPU manufactured by the Leningrad Electrical Engineering Plant.

But first let us discuss a bit of the history. Several years ago, at the buro of the Armenian CP Central Committee, sharp criticism was leveled at the plant collective that had failed to fulfill the planned assignments. G. Oganyan, the first secretary of the party's Kirovakan gorkom, made no attempt to explain that failure by the regular disruptions in the deliveries of the panels, as a result of which, properly speaking, the plan had failed to meet the plan. Immediately after the buro he flew to Leningrad. He talked a bit with the workers and met with plant administrators and party workers. And what happened? The next day the panels were shipped. But one asks: to what extent should the gorkom secretary engage in work that is not in keeping with his regular duties? Because those disruptions continue to be a typical situation to this day.

That takes care of the shipments. As for their quality, these panels cause a flood of complaints. During my visit to Kirovakan, a repair brigade from Leningrad was also there. In reply to my question about the reasons for the poor quality of the panels, adjustment specialist Ye. Gulkovich gave an unexpected answer: because of the inferior element base, in the component parts of which our supplier plants, according to the instruction manual, can have a normed 15-percent rejection rate. Comments, as the expression goes, are superfluous.

Those, briefly, are the reasons for the failure to fulfill the January plan at the Kirovakan enterprise. But what problems can develop for the plant workers with state acceptance? This is not an idle question, since here too there is a lot of confusion.

Let us discuss metal first. The plant produces 30 types of output, and there it needs a broad variety of shipments of metal, sometimes in not very large quantities. And there's the rub. For example, the plant needs steel of a definite grade within the limits of from 10 to 120 millimeters in diameter. At the lower limit it needs 5 tons. In this instance Metallosnabsbyt [Administration for the Sale and Supply of Ferrous Metals] does not accept the production order, since the freight capacity of a railroad car is 60 tons (they are not going to send an empty railroad car). So, instead of steel with a diameter of 10 millimeters, it is necessary to order, say, steel with a diameter of 16 millimeters. If the finished article is processed to a diameter of 8 millimeters, state acceptance can refuse to accept the part: there has been an overexpenditure of metal (because one of the functions of state acceptance is to monitor the economical management of production).

For three years the Kirovakan plant has been producing bench lathes, which have as a component lathe chucks produced by the Khimlegmash Plant in Pskov. But those chucks, as a rule, arrive at the plant in incomplete sets, without reverse cams. True, those cams were subsequently "knocked out" and sent out to the customer after the lathes had been sent. But today state acceptance absolutely refuses to allow the shipment of machine tools without all the components.

Let us imagine that a machine tool is ready and has been accepted in stages. But state acceptance must make its final verdict after packing. Once again there is a problem, the essence of which lies in the following. As long ago

as 1985 USSR Ministry of the Machine Tool and Tool Building Industry was supposed to start up a plant for manufacturing reusable metal packing materials. On that basis, USSR Gosstab reduced by 60 percent the shipments of lumber to enterprises in the branch. The plant is still under construction today, but the machine-tool builders, and particularly the people at the Kirovakan plant, have been receiving only 40 percent of the necessary materials. Previously a way out of the situation used to be found by having the shipping packing manufactured in the form of lattice boxes. Today state acceptance will not accept that: the packing does not conform to the technical documentation.

The resolution of this question lies not within the competency of the people at the plant, but the resolution of many others is within their hands. Why was the period of preparation for state acceptance carried out weakly? "That wasn't the problem," the people at the enterprise answer. "The personnel turnover and the 'all hands on deck!' methods engulfed us. You must realize that last year the problems actually arose practically every day. But we cannot justify that position. This year alone, we certified the measurement apparatus and began to adjust the blueprints and specifications. The technological services were not completely prepared for state acceptance, and there are practically no stands for testing the machine tools under a load. And the state acceptance representatives do not have any measurement devices, attachments, or instruments."

Things are difficult today for the Kirovakan machine-tool builders. Even greater difficulties lie ahead, because during the current year there will be an 80-percent renewing of the production of output to be manufactured. Here too one cannot fail to note the large amount of work that is being carried out at the plant. During a short period of time, it manufactured 5715 different types of unique parts, developed 8000 new technological schemes, and manufactured 5000 different items of zero instrumentation.

The level of quality to which the people at the plant prepared for the changeover to the new output will be shown by time. But one thing is clear: with the existing pool of machine tools it will be difficult to carry out any qualitative leap forward. Because the equipment age frequently exceeds 20 years, and a lot of it is obsolescent.

The new lessons that are provided by state acceptance are linked with the old causes that are preventing the collective at the precise machine tools plant from standing strongly on its feet. State acceptance has given the machine tool builders a large number of tasks, the resolution of which was previously accompanied by a not very high quality of output. They used to receive, for example, electric motors: if there were no obvious defects, they would install them in the machine tool. And so what if, a little while later, the machine tool would go out of commission. The most important thing was the plan. This is not the first year that the Tsentrilit Plant in Charentsavan has been delivering castings with blisters and has not been guaranteeing the proper clearance sizes. The people at the plant became reconciled to that. Incidentally, let's talk about Tsentrilit. It is simply inexplicable how the casters who deliver some of the most critical parts in the final output of the machine tool builders have not changed over to state acceptance.

The lessons provided by state acceptance at the plant are being perceived in a businesslike manner. But the most important thing is that there are very normal relations between the administrators and the state acceptance representatives.

"They know their job well, and their work is aimed primarily at helping us," E. Grigoryan says.

"On the part of the plant management we sense complete support of our actions," state acceptance chief L. Dokhodyan states. Well, it really is pleasant to see such unanimity in their views. And one would like to believe that that unanimity will enable the Kirovakan machine tool builders to overcome their lagging behind.

#### Stroyplastmass Linoleum Production

Moscow EKONOMICHESKAYA GAZETA in Russian No 10, Mar 87 p 11

[Article by EKONOMICHESKAYA GAZETA correspondent V. Purgin, Akhangaran, Uzbek SSR, under rubric "State Acceptance: Quality, Rhythm, Discipline": "Strictness to Advantage"]

[Text] By the end of the work day, everything is very lively in the room where the state acceptance of the Stroyplastmass combine is located. During those hours everyone who is carrying out nondepartmental control gathers here. State acceptance representatives F. Ti and Sh. Yusupov come into the office. They have returned from the linoleum shop.

"We were checking the technological process in the manufacturing of PVKh [polyvinyl chloride] linoleum on a heat-insulated subbase," Flora Fedorovna Ti says. "The results were disappointing. All the output that had been manufactured today by Ye. Koroleva's shift -- 4,500 square meters -- was returned for additional work to be done to it. The reason was failure to observe the GOST [all-union state standard].

On that difficult day, the people in the shift carefully analyzed the output. No, it was not an absolute loss. It was simply that the linoleum had been manufactured with various kinds of carelessness which, in general, can be eliminated. But the workers knew about them, and they had been seen by the OTK [technical control department] checkers! Unfortunately, the people here had become accustomed to paying no attention to "petty details." But those "petty details" cost the combine and the customers a lot of money: out of eight types of output being produced, only two conform to the present-day requirements.

The collective in Ye. Koroleva's shift had to eliminate the defects during their nonwork time. According to the terms of the socialist competition, the entire shift is now deprived of any material incentive payments.

"Yes, we'll remember this lesson for a long time," foreman Ye. Koroleva says. "But state acceptance is right: more attention has to be paid to the quality of the output."

The workers' quality control has been introduced in Ye. Koroleva's shift. Three workers at the beginning of the technological flow, in the middle of it, and at the end not only carry out their immediate duties, but also keep an eye out to make sure that there are no defects in the linoleum.

"We see our task not only in holding back and returning output with defects," V. Nekrutenko, state acceptance chief, says. "First of all we must analyze the reasons for the defective output. Unfortunately, many people at the enterprise continue to orient themselves on the 'gross [output],' and are not concerned at all about the quality. Hence the production of substandard output."

At the present time state acceptance accepts at the first presentation only approximately 50 percent of the finished output. Technological discipline at the enterprise has been impaired, the level of production efficiency is low, and certain production sectors can be called nothing other than handicraft-type sectors.

Actually, in the cast-articles shop, in the midst of a heap of blanks and production waste the assemblers process and assemble manually the siphons for the baths and washers. Equipment for that purpose is located at the sector. But, for example, out of the D series automatic thermoplastic machines, not a single one maintains the technological modes for pressure, temperature, or time. What kind of quality could one expect from this? The production of polyethylene pipes and film is also not in the best condition.

"There are no available areas," combine director L. Pyak explains. "The casting-articles shop is located, as the expression goes, on a dime. The enterprise will have to re-outfit hundreds of work stations, to order or manufacture dozens of new molds, and bring a large number of documents into conformity with requirements. However, during the short period of preparation for state acceptance it was simply impossible to correct what had been neglected for years."

Of course, it is impossible to resolve all the bottlenecks immediately. At the same time this work is currently being done extremely slowly at the combine, despite the orders issued by the director and the numerous planning sessions and meetings.

One can see, even from a cursory acquaintance with the actions taken by various services at the enterprise, that many shortcomings that are eliminated on the demand of the state acceptance are testimony to the ordinary sloppiness and irresponsibility of those very same services.

For example, it was revealed that the equipment in the shop for manufacturing and repairing the technological gear fails to guarantee the necessary quality of the molds. As a result, the cast articles do not meet the standards. However, as long as a year ago the work stations and equipment were certified

at the combine. At that time the specialists came to the conclusion: the machine tools were so imperfect that the workers had simply to take evasive actions to prevent the production of defective output. A year went by and absolutely nothing was done. Now the people at the combine throw up their hands and say, "You can't replace machine tools in only one hour. We can't figure out what to do..."

The work of state acceptance in January and February showed that the restructuring has affected only the superficial segments of the mess that has been piling up for years. Executive discipline continues to be weak, there is a lot of paper-shuffling, and only a little of actual work done.

State acceptance has become part of the life at the combine's collective in order to help them to improve the quality of the output. The just strictness of the new service is in the interests both of those who are manufacturing the articles and those who will use them.

#### Tbilisi Furniture Association

Moscow LESNAYA PROMYSHLENNOST in Russian 19 Feb 87 p 1

[Article by L. Seturi, leader of a brigade of carpenters and assemblers at the Gantiadi PMO [Industrial Furniture Association], Tbilisi, under rubric "The Worker's Podium": "Being Both Responsible and Exacting: Problems Revealed by the State Acceptance of Production"]

[Text] I don't like the quiet in the shop. It's quiet and immediately I somehow get the uneasy feeling that something isn't quite right. Recently I dropped by to see my neighbors. It was quiet there. Both layout machines are quiet. So are the calibration machines. And so are four out of the six presses. The workers are sitting in a row against the wall, exchanging the news.

"Are you bored?" I ask.

"What are you trying to do, Levan Aleksandrovich, cheer us up?"

And, to put it truthfully, there would seem to be nothing to be happy about. They had failed to fulfill last year's plan, this year's plan had also started terribly -- they failed to fulfill it in January. What was there to be happy about? Previously we used to think very complacently that we would somehow be able to catch up later on. But now there's no thought of that. The state acceptance that was introduced at our Gantiadi furniture association has knocked out our trump card. The last-minute storm tactics in production always had been the direct relative of the defective output, and now even moreso. But nevertheless it is necessary to state outright: we have not yet completely assimilated the new conditions.

But let's take everything in the proper sequence. We prepared at the combine for the state acceptance. Long explanations were given to our brigade of assemblers that it was a strict measure: it is a necessity, and there is no other way to improve the quality. They said that the demands made on us would be strict. We agreed. We also approved the control measures. We have a so-called "tear-off coupon," the personal quality card for each worker. If any irreparable defect is located, one of three coupons is torn off: in this



instance the worker completely loses any bonus paid for producing high-quality output. Then stricter punishments follow. But if the technological process has been violated by the brigade, the corresponding entry is made in the log book and the bonus paid to the entire collective is reduced by one-half; if the violation is repeated, the bonus is canceled completely. For the combine as a whole the penalties paid as a result of defective output reach several thousands of rubles. It is an effective measure. For example, recently our brigade had an instance when output was returned. Two assemblers had picked out the wrong color doors for cabinets. Following the old custom, they wanted to work as fast as possible. It seemed like an impasse. They had to redo the cabinets, they lost time, and it also hurt all of us in the pocketbook. I'll make bold to assert that the discussion that followed was rather sharp. I doubt very much that those two will ever take the course of deliberately producing defective output again.

A certification of the technical control department was conducted at the enterprise. One-third of its checkers failed to pass the certification. A serious attempt was made to reinforce the OTK [technical control department]. A new rule was introduced: the checkers' earning now depend upon the percentage of output that is accepted by state acceptance at the first presentation. In turn, the production brigades have the same dependence upon the OTK. And in the event that there is 100-percent acceptance of the output, the size of the bonus reaches 70 percent of the wages, and this is a major material self-interestedness. Or take, for example, the documentation. The association specialists reviewed all of it together with workers from the lead institute of the Merkani NPO [scientific-production association], and almost all the technical-norm documents today are in complete order, and this also is a very important condition for quality.

In combination with other measures -- the introduction of the job of deputy director for quality, the organization of quality groups in the shops and sectors, the sharp intensification of admission control, and the explanatory work that is broadly extended by the party aktiv -- all this was supposed to provide the expected results. That is what people felt at the association. It was supposed to. But it did not completely provide those results. And this is why.

Genuinely high quality (and this is no secret to anyone) can be achieved only if there is rhythmical work, and this in its turn is possible only if there is a raw-materials reserve for at least 15 days. But we began working under the new conditions practically starting from zero: during the last 10-day period of December we did not receive a single cubic meter of raw materials. No wood-shaving slabs, no plywood, no veneers. Nothing. You look into the stock room or the warehouse, and it's empty. Frequently the work begins, in the literal sense of the expression, while the materials are still on wheels. Most of our workers live literally behind the enterprise fence, in our own furniture makers' settlement. Whenever a railroad car arrives, the shop chief sends a "courier" through the apartments. And the the workers literally accompany to the layout tables, sometimes into the third shift, the loader and the DSP [duty station master]. But what are you supposed to do? Without the slabs the entire conveyor belt will stop. Production goes on at a fever pitch. Plans are disrupted, earnings are reduced. Our brigade, for example,

instead of 80 wardrobes a day, in January collected no more than 45-50. But instead of the customary 300 rubles, in December and January we got scarcely 200. And that was not for everyone. How are we supposed to fight for quality under these conditions? How can we motivate people not to lose heart? This is the time when the activists should show initiative.

Our trade-union committee has a lot of authority, and it is constantly aware of the most important matters. The chairman of the republic committee, Dzhemal Nikolayevich Saliashvili, drops in at our combine. He began at one time in Gantiadi and he knows and understands the workers' worries and concerns. But even he, seeing our difficulties, only throws up his hands and says, "How can we help?" In my opinion, during all their self-interestedness in restructuring production, the trade unions have proven not to be ready for work under the rigid conditions of state acceptance, and have not yet found their place. Hence the confusion.

Being both exacting and responsible. The fresh wind of democratization that has started blowing recently carries with it precisely that broad formula for the interrelations in the collective. Unfortunately, we have not been accustomed to being exacting toward the leaders. But the time would seem to be ripe for that. Passivity "on the bottom" gives rise to passivity "on the top" also.

And there is something else. It seems to me that people sometimes cover themselves by criticism and self-criticism like a shield. I am not convinced that the mass punishments that are still employed as a common practice really help the situation. If anything, this is tribute to tradition.

In order to produce high-quality output, it is necessary to have high-quality equipment. When our combine was changed over to state acceptance, for some reason no one thought that, for example, in the panel-parts shop it would be urgently necessary to replace 50 percent of the obsolete machine tools, and that half of them had been completely depreciated, and the spare parts for them were no longer being produced. Take, for example, the line for secondary processing of the panels. The calibration machines are so ancient that they go out of commission practically every day, and the adjustment machines allow a discrepancy of 1-1.5 millimeters, which exceeds considerably the tolerances allowed by the GOST [all-union state standard]. What kind of precision, what standards, what quality can one expect here? And the intermediate control of the stacks rejects the parts. Of course, they are used anyway, later on. But some of the raw materials are irretrievably lost, time is lost, and people's labor is lost. Incidentally, we ourselves at the combine have proven not to be very quick-moving. Little was done to train highly qualified worker cadres -- fitters, electricians, machine-tool operators. And yet, without their hands, without their ability, even the most reliable equipment will not operate at its full capacity.

In general it seems to me that in our branch the conversion to state acceptance was made hurriedly, without its being completely thought out, without having constructed, in accordance with solid economic theory, the three sides of the "equilateral" triangle: supplier--producer--consumer. At least what I read in the newspapers about the first lessons of the state

acceptance give grounds for evaluations such as this. The demand for quality must proceed along the entire chain. But out of our 17 suppliers, only the Zheshart Combine is working under the new conditions. Who will be responsible for the rejected raw materials? As long ago as November, so far as I know, letters were sent to everyone, saying, "Dear comrades, we urgently request that you observe the standards and do not let us down." And so Pinskiy sends us two railroad cars full of absolutely rejected plywood. The admission control, naturally, says, "Stop!" Then there is an angry telephone call to Brest Oblast. The representative comes from the plywood producers, he frowns, but he still carries away with him a claim sheet for a sizeable amount of money -- you can't argue with laboratory analysis. The representative goes home, and the furniture makers sit around without the extremely necessary materials. The conveyor belt stops again. Who has won? Why, no one! When the emphasis used to be made to achieve gross output, perhaps the rotten plywood would have been accepted, and people might have thought up some way to use it. But now you can't do that. And so our brigade assembles half the cabinets that have been planned for the shift and suffers completely tangible losses. So that's how it is! Quality has won, and the worker has lost.

It sometimes seems to me that certain suppliers are not afraid of any fines. They agree to pay them, just so long as the quality of their output can be a bit lower. It's easier that way. We obstinate ones who have changed over to state acceptance will be put on rations of bread and water and the customers who will be shipped the raw and other materials first of all are the easygoing ones who do not have any state acceptance or various admission controls, who take what is offered and say "Thank you!" too. It would be a good idea, on a mandatory basis, to change over to state acceptance the base enterprises in the branch that produce panels, veneer, plywood, etc.

I by no means intend to exaggerate our enterprise's difficulties, or paint the situation worse than it is. Things are difficult for everyone. And yet there are contradictions between what is expected and what is actual.

At the present time there is widespread discussion throughout the country of the draft version of the USSR Law governing the state enterprise (association). That Law stipulated rather severe measures for failure to meet the contractual shipments, including failure resulting from the poor quality of the output. But, as practical life has shown us, there is sometimes a chain that is too long between the "originator" of the defective output and its "recipient." I repeat again: it is only if all the suppliers of related services and materials have a strong self-interestedness in the high quality of the work that will completely guarantee the success of state acceptance.

#### Heavy Industry Fittings

Moscow IZVESTIYA in Russian 25 Mar 87 p 3

[Article by V. Mirolevich, IZVESTIYA correspondent, Ust-Kamenogorsk, under rubric "Quality: The Key to Acceleration": "Confrontation, or Why the Director Is Dissatisfied With State Acceptance"]

[Text] State acceptance representatives at the Kaztyazhpromarmatura Association got in touch with the IZVESTIYA correspondent's office. "In response to our demands with regard to the quality of the articles," they write, "the association managers attempt to challenge us to a ruckus, and to get us to compromise..."

At first no one believed that state acceptance will be introduced at that enterprise. The association managers, when discussing this, threw up their hands and said that the ministry's December order concerning the state acceptance was like a bolt out of the blue. But it turned out that that "bolt" had been traveling since October... In October Gosstandart assigned Kaztyazhpromarmatura's deputy chief engineer, Yu. Nekrasov, as head of the association's state acceptance. No one in the collective attached any importance to that fact, and the preparation for the innovation began unilaterally. The thing that this resembled most of all was the preparation for a play: the troupe of state acceptance representatives was rehearsing, and everyone else was waiting for opening night.

The dress rehearsal that was held late in December got everyone worked up. During the trial acceptance -- or, as it was called, the elective acceptance -- one-third of the submitted output was returned, and almost all the cast articles that had been produced were rejected. And when was that? At the end of the quarter, and, moreover, at the end of the year! During those days when, as the expression goes, even God closed his eyes to defective output, and the OTK did not know any other stamp of approval but "Come on, come on, give us more!"

It must be said that the Kaztyazhpromarmatura Association is a unique one in the Minkhimash [Ministry of Chemical And Petroleum Machine Building] system. It produces valves, ball cocks, and other articles that guarantee the operational reliability and safety of gas and petroleum pipelines and nuclear power plants. But its uniqueness lies not in the specifics of its output: since the day when the enterprise was created, it has never coped even once with its planned assignments. Its production capacity are being used to only 63 percent. Modern automatic lines exist side by side with labor methods used by our grandfathers. The number of claims made against the association for its cast fittings has recently come close to the quantity of articles produced... That is the difficult situation in which the introduction of state acceptance began. It is easy to see that many of the persons at the chronically lagging enterprise did not have any faith in the changes. The ordinary workers, the foremen, and the OTK workers were indignant, and claimed that the checkers were being too "picky-picky" in finding fault with them.

"We actually could have stopped production," Yu. Nekrasov said. "But the fight against defective output is not our only task. We are supposed to get down as far as the initial cause, we are supposed to help people to get the technological scheme set up smoothly, and to achieve conscientious work at all stages. In a word, we are supposed to exert an active influence upon production, and that is the path that we took."

But exerting an active influence was hindered by the enterprise's lack of readiness for the state acceptance. Months of inaction in the hope that

"maybe it will go away" were lost. As a result, no adjustments were made in the design documentation, no inspection of the rigging and attachments was carried out, and there proved to be an insufficient number of measurement instruments. All this had to be compensated for on the run. The state inspection representatives pestered the appropriate association services. Those services began to visit the shops more frequently and began to resolve the production that arose in a more time-responsive manner.

The ordinary workers and foremen saw that the people who were arriving were not outside observers, not inspectors with the faces of government officials, but people who were truly interested in improving the situation.

Most of them were former leading specialists at the association with plenty of experience and knowledge. Senior state acceptance representative V. Yakovlev helped to locate and eliminate the causes of defective output in the consumer-goods shop, and Yu. Zadoyev found a mistake in the technical process when milling the parts. V. Grechanik, when accepting a large consignment of articles, immediately discovered defective output and, in accordance with instructions, was required to return the entire consignment. But he carefully checked every article -- the others did not have any deviations. Why had he acted in this way? First, he was convinced that the reason for the defective output did not lie in the technical documentation. Secondly, the specific unscrupulous worker was identified and punished.

"Work has become both more difficult and more easy," I was told by A. Domnin, brigade leader at the machine sector of shop No. 16. "More difficult because it is no easy matter to discern within oneself the customary 'it's good enough as is.' But it's also easier because, for a good worker, defective output is a splinter in one's soul. Previously we used to dismiss real foremen from the shop. Now the hack workers have to make the choice."

The relations between the acceptance representatives and the OTK workers have also improved. They have begun conducting joint open party meetings. One of them, for example, was devoted to the ethics of interrelationships. It is an important topic...

Then, when, despite the pessimistic forecasts, state acceptance became a reality at Kaztyazhpromarmatura, the following incident occurred. General director V. Lysokon, in the presence of the engineers and workers in shop No. 16, crudely shouted at the state acceptance representative.

"Yes, that really happened. I couldn't restrain myself," V. Lysokon says. "They had instituted formalistic procedures, and you couldn't take a step without instruction manuals."

Being unable to restrain himself, or having got to the point of exploding, does not justify the situation. But one can understand it. How are you supposed to deal with the "formalism" or the "devotion to instruction manuals"?

"They lack boldness. They don't take a creative approach to the work," the general director explains. "I tried every which way, but we cannot find a common language."

Actually, the state acceptance representatives do lack "boldness" -- they let defective output through. As for "creativity" -- the ability to interpret GOST [all-union state standards] and OST [state standards] freely... The administrators attempted to "instill" these qualities in them. That was done in various ways. But all the attempts were united by a single simple tactic: it was not the strictness of the control that was placed in doubt, but the people who were fulfilling it. Those who changed over to state acceptance from the association blamed their work in their previous assignments: they didn't do enough work there, but now they are demanding it. The checkers who had been invited from other enterprises were reproached for allegedly not knowing the specifics of production, although there were no justifications for doubting their competency. But then people began inventing them...

In this confrontation the one who caught it more than anyone else was state acceptance chief Yu. Nekrasov. Every day he receives phone calls from irritated people: "Your people are so stubborn again.. Why don't you think a little bit about what you're doing." More than anything else, the invitations to see the director and the chief engineer are like calls on the carpet... And, finally, there are verifiers of various ranks upon whom the director would not be shy about forcing an invitation, giving as his reason the fact that the new service is inhibiting and paralyzing the enterprise's work. Representatives of the gorispolkom, the party's raykom and obkom, and the republic organization of Gosstandart came there. Yu. Nekrasov, during the hot period when the new system was being established, was forced to conduct "tours" of the shops, to explain and prove things... The verifiers did not find anything reprehensible, but, unfortunately, they did not see it in the instances of "crying wolf."

Although one of the most recent instances had put V. Lysokon in an awkward position. He had sounded the alarm because of what were allegedly the inconceivable requirements made by state acceptance on the welding of a certain article. The situation was analyzed in the presence of a representative of the party's obkom. It turned out that the very same OTK, having come up against the replacement of the grade of steel, had required the change in the technological conditions for the welding -- otherwise the output would have been defective. In and of itself, this is a remarkable example of the increased exactingness of the checkers. And it is yet another instance of the director's prejudice: he had not even found time to penetrate into the crux of the matter.

It is a strange situation: the enterprise has a lot of problems, but the management is fighting with state acceptance. This is something else that happened: V. Lysokon and the chief engineer of the Lvov plant had tried for a long time to get the okay for a shipment of rejected crane housings. The chief engineer gave assurances that he had come to an understanding with his state control, and that there were no problems. But Yu. Nekrasov refused point-blank to sanction that transaction which, it would seem, had been very commonplace only yesterday. Apropos of this, the Lvov representative

obviously had exaggerated his capabilities: lying on Yu. Nekrasov's desk was a request from the state acceptance representatives at the Lvov plant to take steps to improve the quality of the output, 90 percent of which in 1986 was rejected by admission control...

The managers of Kaztyazhpromarmatura saw in state acceptance not an assistant, but an interference that infringed on their administrative authority. And they failed to notice the chief thing -- the changes occurring in the collective: the people no longer wanted to work in the old way.

I was told that Bobovich would be coming from Moscow, and the association would immediately begin to fulfill the plan. S. Bobovich is the chief engineer at Glavpromarmatura. Last year he spent practically ten months uninterruptedly at Kaztyazhpromarmatura, "squeezing out" the plan. And for ten months the association fulfilled it. Then he left, and the enterprise made a mess of it, including for the year as a whole.

And so now, in the middle of February, S. Bobovich is at the association again -- in the presidium of the party and economic aktiv. And the person on the podium is repairman-fitter V. Matveyev, secretary of the party organization of shop No. 11.

"You can, of course, be offended, Stanislav Yuryevich," he said in his statement, "but it is not right when the chief engineer of the main administration works for the chief of our shop. You, of course, know how to squeeze out the plan. For us its fulfillment was like a natural calamity -- no mercy was shown either for ourselves or for the equipment. But we don't need any bonuses for overtime operations or any overtime operations themselves: in ten months you squeezed out the ministry assignment, but we have to work on those machine tools for years."

Obviously, it was not for his own personal reasons that the chief engineer at the main administrator fulfilled the role of trouble-shooter. And moreover he is not the first -- this situation has been repeated from year to year. The "official trip" assistance to the association had not resolved the enterprise's problems, but had aggravated them.

This year Minkhimmash changed over to cost accounting. The Kaztyazhpromarmatura Association had also found itself in the status of paying its own way and self-financing. What has changed? The people here were not prepared for the cost accounting. But that's not the crux of the matter: the construction, technical, and technological problems had not been resolved. The casting production that had been introduced during the last five-year plan, because of design errors, could still not be taken out of the adjustment stage. In addition it had not been completely built.

The people at the association are uneasily awaiting the activation of the machine-building plant that is planned for this year -- it is not yet clear what it will produce. There is no design documentation, and the preparation of production has not been begun. Next year the new fixed assets may hang over the enterprise's economy like a ruinous load. To this one might add that, while working under the new conditions, the previous conditions remain

for being provided with materials and -- would you believe? -- planned assignments. The association received the 1987 products-list plan after a six-month delay -- in January...

It is as though, having planned to cover the association's losses by drawing on the excessive profits of other enterprises, the ministry considered the changeover of Kaztyazhpromarmatura to cost accounting to be completed. But no importance was attached to the fact that the enterprise had not introduced any system of incentives for the economizing of resources or even for accounting for the movement of material values. Possibly this is a bold experiment: take an incompletely built enterprise, which is operating at a loss, and introduce self-financing there and make it pay its own way! Or is this self-deception?

Could that be why the director appealed to the state acceptance representatives for this unusual kind of "creativity," or, to put it more accurately, this lack of principles?

#### State Acceptance Shakes Up Television Production Plant

Minsk SOVETSKAYA BELORUSSIYA in Russian 10 Mar 87 p 2

[Article by S. Butkevich, SOVETSKAYA BELORUSSIYA correspondent, and K. Severinets, BELTA correspondent: "There Is Only One Route for the "Vityaz"; Correspondents of SOVETSKAYA BELORUSSIYA and BELTA Report from Vitebsk"]

[Text] Vitebsk--Everyone is familiar with the story of a fairy tale: a vityaz [a hero knight] stopped in thought beside a roadside stone marker: "Go right.... Go left...." Those who make the Vityaz television sets found themselves in such a position at the beginning of the 5-year plan. What is to be done? Continue the campaign for production volume? Following this smooth route for 10 years, the collective of the Vitebsk television set plant won the laurels of a pace setter: it gained prize-winning places in the competition, held holiday demonstrations and attracted personnel with solid wages, a significant portion of which consisted of bonus awards. Appraisal of the work showed an impressive number of Vityaz sets. They did not like to speak about the fact that each second set failed to stand up through the guarantee period and that aside from almost 7,000 receivers returned each year to the enterprise approximately 20,000 required pre-trade repair work. Possibly, this wounded the pride of the plant's personnel, but it did not affect the pocketbook.

In response to the complaints about the quality of the television sets, they reproached subcontractors. They said that they were sending good-for-nothing parts for assembly and were unconscientiously fulfilling contractual obligations.

If such is the case, then here is a second way: an offensive against subcontractors under the banner of the struggle for quality! Why has not the Vityaz plant taken this route? Did it become timid? To a certain extent, yes. Try, for example, to refuse a batch of subgrade picture tubes arriving at the plant at the end of the month. By the time you manage to get replacements, you will find yourself missing the plan and all its concomitant benefits.



But it is not just a question of overcautiousness. Defective parts often move without hindrance along the assembly conveyor due to weakness of initial receiving control. The laboratory which inspects the products of supplier plants is not provided with technical and technological documentation. Here you have a shortage of work stations and measuring instruments. Even reliability of conductors and integrated circuits on which special demands have to be made had been determined until now in a most primitive way. Here is a quotation from the instructions for initial receiving inspection: "The external appearance of connectors must correspond to the standard. Verification is done by external examination and comparison with samples. Standards are not sent." In a word, don't check, but trust....

It may seem strange, but such trust is even convenient. In the course of a year, they deduct, let us say, a million rubles for defects, but try to determine whether it is the subcontractors' fault or one's own.

... Even at the entrance to the plant we heard the voice of the state acceptance manager, V.V. Butkevich. The plant radio broadcasts it to all the shops and departments. Not instructions, not idle appeals, but businesslike answers to the urgent questions of hundreds of people: engineers, technicians and workers.

"Such broadcasts have become a tradition," editor Ye. Kovalchinskiy explained. "The first part ended when they officially introduced extradepartmental control. It did not appear in a vacuum. Its basis was prepared by personnel of the Vitebsk Center of Standardization and Metrology. By way of experiment, they inspected a portion of the television sets since the summer of last year. Today in the new service, we have experienced specialists from the enterprise, and they frequently visit our studio."

The broadcast, which was recorded for the next shift, was heard together with V.V. Butkevich in one of the assembly shops.

"Openness is an essential condition of success for state acceptance," said Valeriy Vasilyevich. "Our job, as we understand it, is to take in hand the slipshod worker and forbid the shipment of poor-quality products, but in such a way as to exclude the attitude both of careless work and of inevitability. Some prohibitions without an explanation of the nature of restructuring can be misunderstood without giving offence. Yet, one would think, what is there to be offended by? You do not hear of defects in soldering of parts, mistakes in integrated circuits. The screen of a just assembled color set turns black and white, the sound is lost and the lines blind the eyes. These do not come from outside but are our own faults. Nonetheless our strictness was at first taken negatively. How could it be, years of no problems, and then suddenly -- stop!

"There were many arguments. In the first days of work, we almost drowned in a whirlpool of paper. In returning any batch of items for alteration, we worked up as many as a dozen different references. For hours we did not leave our offices. But then we refused for good any extra writing and now we are doing beautifully with one generalizing certificate. This has saved time in actual production and in prevention of defective output. We won because of

intense observation of the production process and live exchange with workers. The people began to understand: you could not look forward to indulgence.

"An example of a basic position of extradepartmental control was our demand to stop the production of printed circuit boards. For 4 days they did no work at one of the main shops, but since then there have been no criticisms. Overall plant statistics on quality improved. Whereas in January of last year, unsatisfactory equipment claims were received for 9.5 percent of the television sets, in October the figure was already 3.4 percent. In the time of the transition to state acceptance, the reliability of products during the guarantee period almost doubled. Representatives from the plant started to make fewer trips to stores for the purpose of repairing rejected sets. The very presence of state acceptance specialists markedly disciplines the workers. Gradually, defective output stops being anonymous. In the last month or two, chief technologist V. Andreyev, chief machinist V. Lukashevich, chief of the technical control bureau of the assembly shop Yu. Rudov and deputy chief technologist for assembly production N. Dubrovskiy had to answer to the administrative commission of the rayispolkom. All of them were materially punished."

The authority of extradepartmental control is based not only on the special powers of this service, but also on the personal qualities of its staff members. The actual head, a former deputy chief engineer, has a great deal of experience, and so does his assistant.

In addition to high skill level, such traits as responsibility, quickness of uptake and determination are also taken into account. The new service refused to allow shipment of Vityaz sets more than a hundred times and decisively rejected 500 sets. Seven general plant orders based on the results of the inspections were issued on punishment of careless workers and 49 orders came out on penalties for specialists of departments. The uncompromising struggle against defective output affected plan indicators, which also meant earnings.

"It is unpleasant," N. Murashkevich, chief of the assembly shop, acknowledged, "but what can you do. Each month one-third of production is declared defective. In November we handed over 3,150 television sets of the new promising Ts-381 model. State acceptance returned more than a thousand for further work. Seventy different defects were found in them, but almost one-half are due to poor-quality soldering. This is done in a neighboring shop. There they assemble the chassis and we install them. The result is that we find ourselves embarrassed both on our own account and because of the others. The slipshod workers fulfilled their plan, but the conveyor is stopped in our shop."

The assemblers' resentment is understandable. But it could also be addressed to the plant's technical-control department service, which for 10 years has not been fulfilling the functions assigned to it. This sad fact was clearly illuminated by state acceptance. After a selective inspection, it accepts at the time of first presentation 64 percent of the items, but the "brother" department (with continuous control!) okays for shipment to customers 80 percent of the Vityaz sets. How does one explain such tolerance of the

plant's quality patrol members? By their bonuses depending on the well-being of the overall production picture? Not solely by that.

"In our objectives, we forget that the operations of the technical-control department service constitute an acknowledged technological stage," A. Vorobyev, the plant's director for quality, says. "The collective is artificially divided into "we," who do the work, and "they," the inspectors, deceiving whom has almost become an act of valor. A worker, for example, in spite of the requirement, does not submit for inspection the first part of a batch. And if there are defects, their number is subsequently fixed and it becomes necessary to declare the entire lot defective. How do the shop specialists react to this extraordinary occurrence? Do they urgently look for the reasons for the defective work? Do they propose ways of eliminating it? Alas no, they try with all their power to push through the botched work to the next shop. And they frequently succeed. It is difficult for many inspectors to withstand the pressure of experienced engineers, especially since of the 500 workers of the technical-control department, only 18 have a higher technical education. And if someone of them still determinedly stands up for what he declares to be right, then at the quarter's end he has the satisfaction of being stronger than the shop's management. Is it surprising then that state acceptance is obliged to duplicate and to recheck the technical-control department?"

The self-criticism of the deputy director is significant. A. Vorobyev has put at the top of his agenda not the vaunted objective reasons but the mutual protection of people who have come to terms with lower quality criteria and loss of professional pride at all levels. Hardly a year ago Anatoliy Vasilyevich would not have risked talking about this with such candor and then to go on to present his thoughts to the entire collective, which happened recently on a united political day. Today it is impossible to do otherwise. Urgent problems are on the lips of everyone. The main thing is to have the right words more quickly embodied in concrete decisions and acts.

"We have only heard about state acceptance," said G. Solonenkina, brigade leader of female assemblers of plastic parts. We do not permit defective output, but what it costs to stay at this level! We have been asking for a long time to equip a place for storing stock, to set up a storage location for assembled panels and to inaugurate their regular dispatch to the main shops--all this to no purpose. The introduction of state acceptance should be accompanied by a rise in production efficiency and the creation of conditions promoting the production of good-quality products." As we see it, G. Solonenkina and her friends are not indifferent people. Their brigade was the only one at the plant to switch to self-monitoring and the quality of production is maintained here really on one's word of honor. The best female workers, while they complain of difficulties, still conscientiously do their work.

What is hindering others from following their example? Why is it that in a many-thousand collective, only 235 persons have their own personal brand? Because all the "parents" of the Vityaz plant, from the designer to the inspector, are aiming not at world-standard models in radio electronics but at something average for domestic industry. The new Vityaz set on whose mass

output the plant is placing big hopes has so far been certified for the first category of quality. It now needs to be pushed to the top category. In terms of the reliability of a number of units, materials intensiveness and utilized capacity, it significantly lags behind the best foreign models. The set has not acquired the high indicator of operating the limit of 7,500 hours.

The spacious corridors of the plant's administration appeared crowded. Crowds of elegantly dressed people from the Institute of Technical and Economic Information got in the way. They smoked, talked about whatever, waited for someone. It was difficult to believe that each one of them was drawn here by some urgent work.

In the set assembly department, a young specialist was dejectedly going through plastic parts acquired on a cooperative basis and rejected by state acceptance.

"The burrs, you see, have to be cut off," he complained indignantly. "No one prior to this noticed the defect. Because of a trifle, we are losing time, we shall be quarreling with our subcontractors and have ruined the plan...."

No, it is not the complaints of extradepartmental control that hinder the plant from fulfilling its production program but the psychology of determined "passing" caused by a total lack of responsibility for defective work.

This psychology is tenacious. Because of it, the Vityaz plant remained at the crossroads.

But the choice has been made, and the road determined.

Now what is needed is to go boldly forward.

#### Gains from Extradepartmental Control

Moscow EKONOMICHESKAYA GAZETA in Russian No 12, Mar 87 p 12

[Comments on work under extradepartmental control by Aleksey Aleksandrovich Dontsov, first secretary of Rostov Party Gorkom, in the column "Quality--A Political Task": "Improvement in Precision"; first two paragraphs are source introduction]

[Text] State acceptance has been operative since the beginning of the year at six enterprises in Rostov-na-Donu. They are responsible for one-third of the products made in the city. These are grain-harvesting combines, sanitary fittings and accessories, bearings, chemicals, electric tools and radio apparatus.

The problems of work under the conditions of extradepartmental control are described by Aleksey Aleksandrovich Dontsov, first secretary of Rostov Party Gorkom.

"I must confess that we did not anticipate any special problems or disturbances. After all, a lot of preparatory work had been done, it seemed to us. Open party meetings were held in the collectives, and there were

meetings and talks at the party gorkom. The establishment of services of extradepartmental control was maintained under view. At Rostselmash, 72 of 120 state acceptance members were CPSU members, at Khimzavod imeni Oktybrskaya Revolyutsiya Production Association and at the Elektroinstrument Plant more than have were also communists.

"Furthermore, at Rostselmash and at GPZ-10 [State Bearing Plant No 10], shop party organizations were created and at the other four enterprises, party groups that united state-acceptance personnel. They immediately went to work. At Rostovsantekhnika Production Association, however, as at the other enterprises checks were carried out of observance of technology and correspondence of products to GOST's and OST'S. Such "inventory taking" of violations and deviations from the norm helped to plan a program of action and to establish control over its fulfillment.

"... But the new year started, and it turned out that practically not a single enterprise was ready to operate without stoppages. At GPZ-10 on some days in January, state acceptance accepted only 16 percent of production on first presentation. Such facts could not but help concern the party gorkom.

"In order to get an objective picture, we decided to look into everything in detail. As a result, we found bottlenecks at each of the six enterprises: at one--production processes turned out to be far from perfect, at another, the equipment had become obsolete and at a third, technical documentation had been neglected....

"Common 'painful' spots were also determined. The main one was a shortage of modern control and measuring aids. Here is what the head of state acceptance at GPZ-10, V. Kondratovich, said, for example:

"'At the plant a disproportion came to exist: it has modern equipment but no effective means of control. But the Vsesouznyy Nauchno-Issledovatel'skiy Institut Podshipnikovoy Promyshlennosti Scientific-Production Association together with the Main Administration for Bearing Production for long years has been feeding the enterprise with bountiful promises.'

"At the Elektroinstrument Plant, there is a semiautomatic testing stand, but here long lines of up to 150 persons are formed. There are insufficient measuring instruments at Rostovsantekhnika Production Association, while those that exist were made with their own resources. Here they do not even dream of microscopes, rubber hardness gauges, instruments for measuring the thickness of electrochemical facings and other instruments, although requisitions have been lying around at the ministry since March of last year. Telegrams to the USSR Ministry of Instrument Making, Automation Equipment and Control Systems remain like the voice of one crying in the wilderness.

"I could be told that the party gorkom has no business poking into technical and technological fine points. But that has not been our aim--it is important for us to throw light on a problem, to direct people to solve it and to know exactly that it was in the power of the collectives themselves to solve it and where they could not do so without our help.

"The North Caucasus Center of Standardization and Metrology conducted a comprehensive check of the organization of metrological support at enterprises where state acceptance has been introduced. The conclusion was not very comforting and already known by us: there was a shortage of control and measuring instruments.

"Then we decided to bring science to our aid. On the party gorkom's initiative, a broad discussion of the problem was held. It showed that the scientists were capable of making a significant contribution to boosting production quality. I shall cite several examples.

"At the present time, a stand is being created at the Rostov Institute of Agricultural Machine Building for testing a combine. Here they are working on creating instruments for integrated control of the precision of bearing rings and parts of universal joints of agricultural machines. Even now, the institute is ready to turn over to GPZ-10 and to the Elektroiinstrument Plant technical documentation for fabrication of instruments for the automatic control of the size of rotating bodies and nondisruptive control of the quality of the materials.

"The experimental plant of the Rostovskiy Nauchno-Issledovatel'skiy Institut Tekhnologii Mashinostroyeniya Scientific-Production Association is going to put out a batch of electroacoustical hardness testers developed for nondisruptive operative control of the physico-mechanical properties of parts made of steel, of brass and of aluminum alloys. The method of spectral proximal analysis of steels and alloys in entrance control can be introduced at practically any machine-building enterprise.

"Scientists of the Scientific-Research Institute of Mechanics and Applied Mathematics of Rostov State University have expressed their readiness to create an ultrasound device for control of electronic welding of hubs and drums and instruments for control of porosity of products made of powdered iron.

"Today, of course, it is too soon to speak of a total solution of the problem. But the first steps have been taken. For the purpose of controlling the implementation of measures relating to raising production quality and coordinating the activities of scientists and production collectives, a technico-economic council has been created attached to the party gorkom. Much work lies ahead.

"Time requires that we do not just live one day at a time but also be able to look ahead. The question of developing the production of diagnostic equipment became imminent long ago. It must be solved not only locally but also on a state scale. Moreover, it would appear useful to create in Rostov a specialized enterprise for the repair of control and measuring instruments. The oblast's plants and association possess more than 3 million units of diagnostic equipment. The existing separate affiliates and shops are now in no position to perform quality repair work. It is thus necessary for the technical-control department services and state acceptance personnel to carry

out measurements, figuratively speaking, in meters which have anything but 100 centimeters.

"Yes, state acceptance presents a difficult examination. Still in fairness it should be pointed out that despite existing problems, extradepartmental control has made its point in imposing order and raising quality. Today almost all enterprises are close to 100-percent turning over of products on first presentation. Without replacing soviet, party and economic organs, the party gorkom sees as its task providing feasible assistance to plants and associations and further strengthening politico-educational work in all labor collectives.

#### Complaints at Carping

Moscow SOTSIALISTICHESKAYA INDUSTRIYA in Russian 14 Mar 87 p 2

[L. Skoptsov report: "'Kompessor' Under the Press of Quality"; first two paragraphs are source introduction]

[Text] Riga--The Riga "Kompessor" Plant has a good reputation: the export product is free of complaints, and not more than 1.5 percent of units is returned within the Union. Fourteen years ago--at its own initiative!--the workforce switched to 100-percent fulfillment of contract supplies and kept its word.

However, this January came, and in the first 10 days the state acceptance officials accepted 7, in the second, 11 and in the month as a whole, 61 percent of products from the plan quota.

Shortly before the new year team leader V. Abelmazov said in an interview with republic television that he did not fear the introduction of state acceptance for the units assembled by his composite team. It was a stable, highly professional group functioning like clockwork. Interreplaceability. Operations honed over decades. Nor does he fear it now. Only the appreciation of the situation has changed.

"The most serious mistake, common to the whole plant," Abelmazov summed up the first stage of the work with state acceptance, "was that we thought: things will be somewhat tougher, but not much. No one was expecting that the team would for the first time not fulfill the plan. The month's work had been done, but what had been earned was incomprehensible.... The team had been addressed in December by representatives of state acceptance, and future requirements had been explained. We had seemingly understood everything, but began to work under the new conditions in the old way."

Neither the team leader nor V. Knizhnik, organizer of the production bay's party group, are dramatizing the situation. The plant had not prepared for state acceptance, but in the course of the first quarter, they believed, the production line would assume its customary rhythm. After all, the state acceptance officials are not demanding anything supernatural. The technology

would be observed--the assemblers would do all that needed to be done. The confidence of the people at the production line was justified: whereas in mid-January units prior to packaging were being "put in shape" on the desk, at the end of the month they were going into the container directly from the production line. However, the further away from the production line, the more manifestly the evaluations change. At the top of the plant hierarchy one hears something else: the enterprise did not, it transpires, let slip a preparatory period, it is simply that the state acceptance officials, availing themselves of complete freedom, are caviling at trifles.

"If I were an acceptance official," Yu. Ilin, deputy general director for production, argued, "I would be inspecting operation: the furnace should be heating, the refrigerator, cooling. But they are now checking such things as and demanding the removal of such defects as have no influence on working capacity. The 'Kompressor' will disrupt the supply plan for the first time on account of such trifles as burrs or spray from the arc welding! Owing to our disruption, the consumers fall behind also. There are losses. Is there benefit to the state from this? State acceptance should be working together with us on a plan-oriented increase in quality. After all, there is the excellent 'Quality-90' program, geared to the 5-year plan, which will provide for all that state acceptance is demanding, but by 1990, and not now."

Indeed, problems which have not been tackled for dozens of years cannot be solved in a month. Equipment is worn and does not ensure precision. Product efficiency is as yet being achieved not by the precision of the machine tools but the very high skill of the assemblers. People have been reconciled to this situation for many years. And have essentially been reconciled to the absence of the genuine culture of labor. And have been in no hurry to reorganize themselves. Consequently, it is necessary to change people's mentality. And to begin with outward appearances.

For how many years has the spray from the welding not been cleaned off? It was painted over until state acceptance said "no!" Five assemblers remained behind after work and cleaned off 400 frames. And told the welder that henceforward he would be cleaning them himself. He cleaned for 2 days and... conceived the idea for a spray deflector.

The plant technical inspection department confirms the effectiveness of the path chosen by state acceptance. Mariya Yakovlevna Romul, who has worked at the plant for 30 years, said: "The changes are astounding. Complaints about outward appearance have declined sharply. We technical inspection department inspectors have sensed that people are now really reckoning with us. We do not have to run after the workers now and do not have to persuade them. They themselves approach us to ask: 'How are things with us, where are there still deficiencies?'"

There is a new chief in the assembly bay--V. Dotsenko. I saw him at the surrender of products for state acceptance: perspiring and disheveled, with pliers in his hand, he was "combing" the grills, removing the faults of his former wards. He justified himself: "I warned them that the shop was not ready for state acceptance. But they said to me: 'Who? Us? You're a panicker!'" The new chief began with the standards of the workplace. Now the parts do not lie



about in the dust and are issued in accordance with the strictest accounting, and there is no dirt. V. Dotsenko, the workers said, brought all the foremen into the shop on their day off and together with them brought cleanliness and order to bear.

State acceptance is headed by A. Stekolnikov, former secretary of the plant party committee. Objectively the management and state acceptance lean in a single direction. The differences are in the ideas concerning the rate of arrival at the prescribed frontiers. Why, then, have the plant's managers come down hard on the state acceptance representatives? What is the greater factor here: injured professional pride or the wounded esteem of departmental exemplars? One had the impression that the management was disturbed more by quantity than quality. After all, the ministry authorities' evaluation is as before: accomplish the plan at all costs.

"To every complaint they had just one answer: 'Know this, if our enterprise is bad, you have not seen any bad enterprises'," the acceptance officials said. It is clear to the naked eye that the restructuring has not affected the engineering-technical personnel. Perhaps now, without the customary progressive piece-rate wage system, they are beginning to get a move on? But the design and production engineers are not to be seen in the shops. Yet it is essential that they be there. The "Quality-90" program heralded by the plant workers is, to be plain, lagging behind.

L. Kats, chief of the assembly shop, showed me new machine tools which could release three dozen workers and enhance machining precision. It has not been possible to use them for more than a year.... A Finnish module was purchased, but economies were made in foreign currency, and it has not been possible to find assemblers for a year now.... However, there is nothing for the plant engineers to worry about, seemingly: the plan will be accomplished by the old machine tools, and the first-rate assemblers have managed to extract the output parameters, bypassing the obstacles of state standards and technical administration.

So the state acceptance officials' position was absolutely correct, in my view: striving primarily to ensure among the plant workers a change in the attitude toward quality. All the people here, aside from A. Stekolnikov, at the "Kompressor" plant are new, so they are not bound by ties of friendship and plant patriotism. It is easier for them "not to become a part of the situation".

Indeed, there is no direct "bridle" for state acceptance. This fact puzzled the plant's executives: it should not be, cannot be the case that people working at the plant are not fully interested in the plan. The best state acceptance official, it transpires, is he who has released no products into the national economy? No, one question was not thought through upon transition to state acceptance: supervision of state acceptance itself. Such was the position.

The workers waited to see: who would win? Their evaluation of the situation concurred with that of the acceptance officials, but material interest, no. If state acceptance were to stand firm, the sense of responsibility which had

appeared would be reinforced and would grow in depth of consciousness and in breadth, encompassing increasingly new plant floors and services.

The first test of strength was to be the end of January. The "ninth wave" of the last-minute rush work--how many times had it swept quality aside? But state acceptance did not forgo scrupulousness. Sixty-one percent fulfillment of the month's plan--the objective evaluation. February was to answer what was behind this evaluation: the level of actual potential or simply a hitch at the start. The confusion passed. The "Kompressor" is hitting its customary stride. The overwhelming majority of units are passing state acceptance upon first submittal. The workers joke: "Previously the compressors for export were worse than those in series production now." January's "shortfall" has already been eliminated to the extent of half a million rubles. It is hoped to make good the remaining R700,000 in March. And, what is most important, the restructuring of the technical services has begun. An example of this is the plant testing program. It is stipulated by a state standard, but had not been fulfilled for many years. The lack of test benches was the excuse. The benches were manufactured in 2 months.

The acceptance officials are consistently and unswervingly moving the front of restructuring along the production chain. Increasingly new allies are being found.

#### State Acceptance Reveals Neglect

Moscow SOTSIALISTICHESKAYA INDUSTRIYA in Russian 24 Mar 87 p 1

[Own correspondent N. Ordinyan report: "Out of the Frying Pan Into the Fire"; first three paragraphs are source introduction]

[Text] Artik--Yerevan--"Understand," Arshak Misakovich, "it was not we who cast the metal for these molds, but the client himself," G. Papoyan, leader of a team of lathe hands, became excited, "you need to hold him to account for the quality of the blanks. We have enough trouble with our own casting, why do we now have to answer for someone else's?"

"I agree, the blanks are the client's," A. Yuzbashyan, leader of state acceptance, said. "But what about the violations concerning the sizes of the molds and the quality of their finishing? Are you expecting these to be put down to the client also?"

"You speak as though you yourself have not worked for 10 years at this plant and do not know our lathes," lathe hand L. Saakyan joins in the discussion.

Arguments like this in the shops of the Artik "Steklomash" Plant now arise each time a batch of finished products is submitted for state acceptance. Had the workforce not been able to prepare properly for being held strictly to account?

"How much preparation could we have done," M. Ambartsurmyan, chief engineer of the plant, is angered. "We were not even given a full month!"

As it transpired, the enterprise really did not have to time to prepare. But something else transpired also--even had it had the authorized 6 months, the plant would still have been in today's position.

The Artik "Steklomash" was built as a specialized enterprise for the manufacture of glass molds, which had hitherto been manufactured by the glass plants themselves. They were made in small numbers in amateurish shops, for which reason their costs were exorbitant, and their quality was not brilliant. However, the plant, which had been created in the Ministry of Machine Building for Light and Food Industry and Household Appliances system, was still unable to substitute for these shops. Technology based on the use of all-purpose equipment which was backward even for that time--and this was 17 years ago--was made the basis of the plan thereof. In order to manufacture the simplest glass mold the Artik people have to transpose the blank from machine tool to machine tool 16 times. And, consequently, numerous errors, which plague the plant's workers particularly now, when the equipment is relatively worn, are inevitable. In addition, the plant was commissioned without an iron foundry (it came on stream just 2 years ago), without a strong tool shop (there is none such to this day)....

And is it any wonder that difficulties when it came to marketing the product arose from the very outset. Glass plants regularly turned down the allocated stocks, preferring to make glass molds by themselves. Capacity stood idle, and the Artik people rushed around in the search for clients. But the "assistance" on the part of the Ministry of Machine Building for Light and Food Industry and Household Appliances was expressed in the plant being transferred from one all-union production association to another, and the plans for the production of glass molds diminished from year to year. Ultimately the Artik people had to go down on their knees to manufacture chain conveyers, carriers and storage units for the glass and other products for which the plant was not specialized.

The hope of changes was lit 2 years ago, when the plant was transferred to the Ministry of Construction Materials Industry--closer to the clients. But the change of departmental flag altered precisely nothing. As before, the question of the product plan was not resolved. The present year's quota, the smallest of the whole time, is less than two-thirds contract-supported. You can understand the clients--why would they want a product that is no use. And the ministry has done nothing to organize at this enterprise the manufacture of high-quality and inexpensive products.

In a word, if the Artik plant was an outcast in the Ministry of Machine Building for Light and Food Industry and Household Appliances, it has remained such in the new ministry also. And this has been manifested particularly strikingly in the situation concerning the transfer to state acceptance. Initially the ministry had decided to prepare for work under the new conditions a more auspicious enterprise--the Orel "Steklomash" Experimental Plant. However, there was a change of mind. And a commission from the ministry arrived in Artik unexpectedly on 14 October. Having familiarized itself together with representatives of the republic State Committee for Standards Administration with the state of affairs at the enterprise, the commission concluded that the Artik "Steklomash" was not ready for the introduction of

state acceptance. Nonetheless, a decision was made to transfer it to state acceptance as of 1 January 1987. The order in this connection reached the plant on 19 December. At this same time the plant's workers also received the all-union production association-approved plan of organizational-technical measures pertaining to preparation for state acceptance.

Of course, there could have been no question of serious preparation. The less so in that the quality of the "Steklomash" products was connected with a multitude of problems which were not entirely the plant's responsibility. These included provision with intermediate products and tools and the replacement of equipment. It has to be said that the plant workers did not stand idly by, as they might have, but prepared for state acceptance. And there are results: the quality of the glass mold has begun to improve. But in order to consolidate this process it is important to recognize the main point: state acceptance has with all seriousness put on the ministry agenda problems which were stubbornly ignored for a number of years. And the first among them is the modernization and retooling of the enterprise. There is simply no other way today.

#### Machine-Building Difficulties

Tallinn SOVETSKAYA ESTONIYA in Russian 18 Mar 87 p 1

[Editorial: "Industry: February's Results"]

[Text] The republic's industry improved its operation somewhat in February. The manufacture of products and labor productivity grew compared with the same month of last year. Enterprises and transport organizations operated more smoothly. The 2-month plan for output sales and labor productivity was fulfilled. The pace of work of chemical and local industry enterprises and of the "Estonslanets" Association increased in February. The situation at enterprises of the Ministry of Construction Materials Industry was rectified somewhat thanks to the measures which were adopted--the plan pertaining to the majority of basic indicators was fulfilled and the increase in product manufacture amounted to 6.6 percent in February. But January's indebtedness was still not made good.

Compared with the first 2 months of last year the manufacture of industrial products proved 0.4 percent less. Last year's production level has yet to be achieved by enterprises of electrical equipment industry, instrument making, construction materials industry and timber and wood-processing industry, the State Agro-Industrial Committee and fishing kolkhozes. In order to make good the indebtedness industry has not simply to fulfill but overfulfill the targets of the first quarter. This is all the more important since a number of sectors and enterprises, the fishing kolkhozes and the State Agro-Industrial Committee, for example, have for the first quarter of this year less taut plans than in the corresponding period of 1986. This given that the annual quotas for production volume are higher than a year ago. It cannot be permitted that the entire burden pertaining to fulfillment of the plans fall to the year's end. Last year's practice showed graphically that the indebtedness which emerged as of the start of the year is very difficult to make up later and sometimes simply impossible.

The republic's machine-building and instrument-making enterprises are currently in a difficult position. Last year's production level was not achieved in the 2 months here. Yet they now have to increase production 9.4 percent compared with 1986. Five machine-building and instrument-making

enterprises, including the "Eesti Kaabel," "Estonplast" and Tallinn Experimental Jewelry plants, the "RET" Association and the Tallinn "Prompribor," failed to cope with the plan quotas. It was observed at a recent party-economic aktiv of the republic that one out of every four machine-building enterprises was failing to cope with the quotas pertaining to the series production of new equipment and that the sector was fulfilling inadequately the plans for the construction of facilities and the retooling of the enterprises. The republic Gosplan is currently drawing up a program of the modernization of the machine-building enterprises.

Inadequate preparation for the state acceptance of products is taking its toll at many of them. This is a principal reason for the nonfulfillment of the plan quotas. The upshot was that in February 14 enterprises of the republic fulfilled the plan for the state acceptance of products 96.3 percent (90.8 percent in January). The plan was fulfilled by the Tallinn Machine-Building Plant, the "Talleks," the Tartu Instrument-Making Plant, the "Vyyt" and "Kiviyl" plants and the Narva Furniture Works. At the same time, however, the "RET" Association, the Vyru Gas Analyzer Plant, the "Estonplast" Plant and the Pyarnu "Prodmash" Plant fulfilled the plan only to the extent of 70-80 percent. As before, some of the products in the "RET" Association are returned for additional work owing to engineering breaches, the low quality of the components and the inadequate quality of assembly. State acceptance has serious complaints to make about certain types of products of the Vyru Gas Analyzer Plant.

As a whole, state acceptance is accepting 89 percent of products upon first submittal on average at the 14 enterprises. Consequently, the rest of the products, which have passed the technical inspection department, do not correspond to requirements and would without state acceptance have gone to the consumer. Naturally, there is additional expenditure at such enterprises on removing the defects, and the labor-intensiveness of the products rises. And this complicates the financial-economic situation of the workforce. In other words, it is necessary to prepare carefully ahead of time for the introduction of state acceptance at the enterprises.

Participation in an upgrading of the management mechanism is not only an economic but also political task. Unfortunately, not all executives and party organizations perceive the entirety of their responsibility for such an important business. The Tallinn Experimental Jewelry Plant is the only one of the republic's nine enterprises which has switched to complete cost accounting, self-repayment and self-financing. An inspection showed, however, that it was poorly prepared for work under the new conditions. The conditions of internal cost accounting had not been worked through here in advance. Planning and the evaluation and stimulation of labor are performed in the old way. The retooling plan which has been elaborated does not provide for a growth in production efficiency. The new conditions of pay have not been thought through.

It is essential to perfect economic and organizational work in the Tallinn "Prompribor" Association. Introducing internal cost accounting is difficult here since the possibilities for conveying to the shops such indicators as raw material, intermediate product, fuel and power consumption are limited. There

is a shortage of power meters. The efficiency of the work of the engineering services is linked inadequately with the extensive opportunities for their remuneration. Last year the plan for reducing production laboriousness was fulfilled only 57.6 percent. Owing to this, it was not possible to make savings in respect of the wage fund. At the same time, however, the association has great unproductive expenditure.

The main source of enterprise self-financing is profit. Owing to the irrational use of resources and nonfulfillment of the production plans, 53 outfits, that is, one out of every four enterprises, failed to fulfill the profits plan in January. Yet industry has tremendous potential for an increase in profit. Last year alone unproductive expenditure constituted R1.4 million, losses from defective work, R2 million.

The erratic work of a number of enterprises can be seen most graphically in terms of the state of fulfillment of the contract supplies plan. Some 32 enterprises, lagging to the extent of R6.7 million, failed to cope with it in January-February. Altogether the plan for product sales with regard for contractual commitments was fulfilled 99.1 percent. Percentage fulfillment was particularly low in instrument making--86.9 percent. Basically the reasons for this were shortcomings in the organization of production and low stringency in respect of related subcontractors disrupting raw material and intermediate product supply deadlines. There is no accounting of contract fulfillment at some enterprises. For example, last year certain enterprises of light industry shipped to consumers goods which they had not ordered. As before, some enterprises are underestimating the significance of business contracts and violating the procedure of their conclusion and timeframes. Last year the Estonian SSR State Arbitration Committee imposed fines on 35 occasions on enterprises breaching the timeframe for the conclusion of contracts or simply refusing to conclude such. The sum total of fines for product and commodity supply shortfalls is growing constantly--last year it amounted to R514,000.

The most important task of executives and party organizations now is to support in every possible way the creative initiative of the working people and create all the conditions for highly productive work.

#### Supply Problems

Kiev PRAVDA UKRAINY in Russian 18 Mar 87 p 1

[Editorial: "State Acceptance and Supplies"]

[Text] "PRAVDA UKRAINY editorial office, Kiev. In accordance with contracts based on direct long-standing ties the 'Zaporozhstal' Metallurgical Works was in the first quarter of the current year to have supplied the Kivertsy Machine Plant of the Ministry of Railways with 1,020 tons of roll-formed channel. There were no shipments of the rolled metal throughout January-February. It was only following an appeal to the USSR Ministry of Ferrous Metallurgy and the Ukrainian SSR Ministry of Ferrous Metallurgy from the plant's directors and the oblast's party leaders that 'Zaporozhstal' shipped on 1 March... 201 tons of roll-formed channel, that is, enough for 10 days of enterprise operation. Currently the plant is practically at a standstill. The uncertainty

concerning metal supplies disturbs the entire workforce. We earnestly request that the newspaper assist in accelerating the supplies of roll-formed channel. Voznyuk, chairman of the Kivertsy Machine Plant Trade Union Committee."

This was a recent disturbing telegram to reach the editorial office. Judging by its content, the leaders of the Kivertsy Machine Plant, which is in Volynya, had exhausted, so to speak, the quota of addresses to which it was still possible to appeal for help. After all, newspaper editorial offices are often the last resort which, many industrial, party and union officials and the readers believe, may influence the course of affairs and rectify the situation. The calculation here is a simple one: the newspaper is a party organ, and, consequently, measures will be adopted. Considerable significance is attached to the force of publicity also. If a telegram is published, everyone will know where the dog lies buried, as they say.

The editorial office is not, of course, a supply department. It cannot issue an order to the managers of the same "Zaporozhstal" to immediately settle the debt to the Kivertsy people. It is for this reason that it hopes that these lines will somehow influence unobliging suppliers.

It has to be said that there have been fewer such telegrams recently in the editorial mail. The situation concerning supplies of raw material, intermediate products and components is, albeit slowly, improving. The party has put forward the task under the new conditions of management of striving for the 100-percent guarantee of contract supplies. This is particularly important now, with the transfer of many industrial enterprises to the state acceptance of products.

It is state acceptance which has thrown light on the problems in supply which earlier went unnoticed or to which less attention was paid inasmuch as people had become accustomed to suppliers not being in a position that was binding. Very many complaints are being received about the republic's metallurgists, who are to a considerable extent to blame for the lowering of the end results of the work of a large number of client enterprises. Nor is the sector's strict daily work schedule confirmed by the UkSSR Ministry of Ferrous Metallurgy helping as yet. This schedule is being disrupted at every step owing to organizational discrepancies, inadequate performance discipline, individual breakdowns and forced equipment stoppages. Only two metallurgical works--the "Krivoyrozhstal" and the Makeyevka Works imeni S.M. Kirov--have started the new year successfully.

The fact that some executives and specialists are inclined to accuse state acceptance of all malfunctions calls attention to itself. How can we be held to account, they say, if the supplier has let us down. This is nothing other than an attempt to evade responsibility and not burden oneself with extra worries. After all, it is necessary to work with the supplier also and find a common language. This is what Kharkov is doing. Various forms and methods of creative ties to the outfits fulfilling orders are being employed within the regional "Quality" program framework there. Collective letters from clients signed by the "triangle," which are sent to the suppliers, have been put to use. The letters contain a cogent explanation of what they would like this product or the other to look like and the kind of creative participation of

the subcontractors on which they are counting. The subcontractors adopt an understanding attitude toward such order-letters.

State acceptance has truly given the suppliers trouble. And this is perfectly natural. The 299 enterprises operating in the republic under the new conditions are tied by many threads to other outfits. And if component units or parts have been made any old how, all participants in the production chain have to pay.

There are still many complaints being received by the enterprises engaged in the manufacture of consumer goods. Take television receivers. Their quality is improving, but not sufficiently to completely satisfy demand. For example, more than 80 percent of the breakdowns of television receivers manufactured by the Simferopol "Foton" Production Association occurs on account of the low dependability precisely of the components. Practically all the parts received from outside undergo entry inspection at the enterprise, in which 200 (!) persons are employed. A vast amount of floorspace has been set aside, and hundreds of thousands of rubles are being wasted. But the supplier--the Ministry of Electronics Industry--is not reacting to the plant's complaints since the "Foton" people are under obligation to run parts checks only on equipment agreed with the supplier. But just try getting such agreement. The supplier keeps his analogous equipment, on the other hand, strictly secret. Nor, furthermore, does he bear any responsibility for shoddy work. Such production ties may be termed a game with just one set of goalposts.

There is a tested and reliable method of solving such problems--the organization of effective socialist competition per the comprehensive principle. In order that all allied subcontractors involved in the state acceptance feel identically responsible for the specific product. It is evidently necessary to so link the subcontractor-enterprises in a single production center and so arrange the pay of all the manufacturers and moral incentives that all sense their dependence on the timeframe and quality of fulfillment of contractual supply commitments. And the normative documents in this connection should be drawn up by the State Committee for Labor and Social Problems and the appropriate labor union organizations.

It is not only remote suppliers but frequently one's own right there, in the neighboring shop, also who are capable of throwing off the work tempo. We shall make public one further telegram. It was "hammered out" to the editorial office by workers of No 3 bay of the 12th shop of the "Zhdanovtyazhmash" Production Association. The telegram says that for 3 months now the workforce has failed to cope with the plan for the manufacture of consumer goods. "We earnestly request that you send a correspondent..."

It turns out that the reason is wholly the fact that the bay has nothing to do owing to the absence of material usually supplied along an intraplant circuit. It is odd that the shop party organization and the association party committee and trade union committee had not intervened in the situation and that their indifference to the demands of the workers had brought matters to the point where they were forced to appeal to the newspaper. A scrupulous evaluation must be made of such instances.

The strict, precise fulfillment of contract supplies is one of the three pivots of socialist competition discussed at the 18th USSR Trade Unions Congress. Having made to a high quality and shipped to the consumer in good time everything agreed--this is not an exploit but the direct duty of the supplier. And if you have let people down, be so kind as to answer for it.



## USSR STATE BUDGET FUNCTION IN ECONOMIC RESTRUCTURING VIEWED

## Important Lever for Socio-Economic Development

Moscow FINANSY SSSR in Russian No 1, Jan 87 pp 3-12,

[Unattributed article: "USSR State Budget -- An Important Lever for Accelerating Socio-Economic Development"]

[Text] Our country has entered the second year of the 12th Five-Year Plan with a great amount of political and labor enthusiasm. Having whole-heartedly accepted the tasks for accelerating socio-economic development, the Soviet people are diligently striving to achieve improvements in the economy and more efficient labor organization and to utilize more completely the available reserves and potential.

The process of comprehensive reorganization throughout Soviet society, started on the basis of decisions handed down during the April (1985) Plenum of the CPSU Central Committee and the programmed aims of the 27th CPSU Congress, is gathering strength and acquiring greater scope and depth. During the course of carrying out its decisions, positive improvements were achieved in the national economy. The rates of growth increased in practically all branches of the national economy and this had a positive effect on the results realized from the carrying out of planned tasks. During 11 months of 1986, the volume of industrial production increased by 4.9 percent against an annual task which called for 4.3 percent. Labor productivity is increasing at leading rates. It increased in industry by 4.6 percent compared to an annual indicator of 4.1 percent. The increase in labor productivity accounted for 95 percent of the increase in industrial output. Increases took place in the production and state procurements of grain, potatoes, vegetables, fruit and animal husbandry products. The tasks for freight shipments using all types of transport are being carried out successfully. The modernization and technical re-equipping of existing production operations is being accelerated.

Positive changes in the economy are reflected in the financial results. In 1986, an above-plan reduction in production costs was achieved and the task for profit -- one of the most important summary economic indicators -- was overfulfilled. The overall amount of profit is increasing at the rate of 9 percent and this figure is higher than the average annual increase for the previous five-year plan. Increases in profits are being realized in industry,

construction, the agro-industrial complex and in other important branches of the national economy. As a result, during a period of 10 months more than 5 billion rubles worth of profit were paid into the budget in excess of the plan. The financing of the principal measures for developing industry, agriculture, construction, science, education, public health and other branches was ensured.

The social program outlined during the 27th CPSU Congress is being implemented. The real income of the population is increasing and the housing requirements of workers are being satisfied to a better degree. The scale of socio-cultural construction has increased considerably and increases have also been achieved in payments and privileges from the public consumption funds.

The manner in which the national economic branches fulfilled their 1986 plans testifies to a successful start for the new five-year plan and this convincingly confirms the reality of the tasks outlined by the party. The results achieved are creating a strong foundation for solving new, larger and more responsible tasks.

In realistically evaluating the achievements, the party also points out the unsolved problems and shortcomings and calls for all thoughts and attention to be focused on tomorrow's tasks.

As noted during the 6th Session of the USSR Supreme Soviet, 11th Convocation, the reorganization aimed at raising operational efficiency is being carried out in a slow manner in a number of branches, associations and enterprises and a proper turning point has not been reached in the approach being employed for the economic problems of production or for improving the use of material, labor and financial resources. Many reserves for achieving an acceleration, and particularly those associated with reducing expenditures, remain unused and, as a result, one out of every four enterprises in industry and one out of every three in construction are not fulfilling the plans for financial results. The number of unprofitable enterprises in agriculture, industry and construction continues to be considerable. In a number of republics and oblasts the rates for the production of the consumer goods required for the population are increasing only slowly, as a result of which the plan for turnover tax payments into the budget is not being fulfilled. All of this is complicating execution of the budget and it is weakening the finances of the national economic branches.

The USSR State Budget for 1987, approved by the USSR Supreme Soviet, takes into account the requirements for raising the efficiency of management, concentrating financial resources on the key trends for developing the country and strengthening the regime for realizing economies.

The processes taking place throughout the country in connection with the thorough reorganization of the economic mechanism and creating an efficient and flexible administrative system are reflected in the new budget. Importance is being attached to a number of basic differences in the formation of income and budgetary expenditures for the second year of the five-year plan.

One chief trend in improving the formation of the income base is that of bringing about a radical change in the relationships of associations and enterprises with the budget and the establishment for them of norms for profit payments into the budget which will remain stable up to the end of the five-year plan. The budgetary payments for enterprises and organizations of industry, domestic services, trade, the agro-industrial complex and a number of other national economic branches have been defined for 1987 in accordance with stable norms. This is one of the conditions for the practical implementation of the decisions handed down during the 27th CPSU Congress, directed towards raising production efficiency and intensifying responsibility for the final production results.

At the same time, some of the more promising trends for improving management have been taken into account in the budget, trends which are associated with converting a number of branches, associations and enterprises over to complete cost accounting [khozraschet] and self-financing. They have been presented with greater independence in the use of financial resources for developing production and the social sphere. The conditions required for strengthening the finances of these branches, associations and enterprises have been created.

An important feature of the 1987 budget is its social aspect. Emphasis is being placed upon overcoming the residual principle prevailing in the center and in various areas with regard to the allocation of resources for developing the social sphere. Priority importance is being attached to those problems concerned with financial support for social measures in the budget and this will ensure excessive growth in expenditures for financing the socio-cultural sphere. The plans call for increases in a number of expenditure norms for education, public health and culture.

The budget clearly reflects a program for further strengthening the financial base of local soviets of workers' deputies and this represents a real means for expanding their economic independence. Local budgets will receive a portion of the payments from the profits of all industrial enterprises of union subordination that have converted over to complete cost accounting and self-financing. Increases are also taking place in the payments from the profits of enterprises of republic subordination. By way of an experiment, withholdings for the budget in accordance with norms determined based upon the number of workers or an increase in the number of working positions are being introduced into operations in some cities and regions in the Russian Federation and the Latvian SSR. These withholdings must be used in a municipal or rayon economy for providing services for the population and also for housing construction for workers in the non-production sphere. Additional financial resources for solving socio-economic tasks will be placed at the disposal of the soviets of workers' deputies, in the form of funds saved by means of measures carried out by the soviets for the purpose of mobilizing resources on the respective territories. A considerable expansion has taken place in the rights of the soviets in the joint use of association and enterprise funds and also in the budgetary appropriations for developing the social infrastructure.

Measures have been outlined for gradually converting over to planning village and settlement budgets based upon stable long-term normative deductions from state taxes and income. This will promote increased interest among local organs of authority in accelerating the rates of growth and raising production efficiency and it will serve as a starting point for the radical reorganization of territorial financial planning.

The budget was prepared in conformity with the State Plan for the Economic and Social Development of the Country and it provides the monetary funds required for further improving the economy and culture, for raising the true income of the population and for strengthening the defensive capability of the socialist state.

The USSR Supreme Soviet approved the budget for income in the amount of 435.7 billion rubles, with an increase of 5.1 percent compared to the 1986 plan, and for expenditures -- 435.5 billion rubles, with an increase of 5.1 percent. The excess of income over expenditures was established at 0.2 billion rubles.

Just as in the past, the major portion of the income is formed by means of payments from the socialist economy; it accounts for 92 percent of all budgetary resources.

(in billions of rubles)			
	1986 Approved	1987 Approved	
		Total	Proportion in %
Payments from socialist economy	382.0	401.0	92.0
Payments from population	32.5	34.7	8.0

In 1987, an increase will take place in the role played by profit in the formation of the state's financial resources and in the financing of socio-economic measures directly at associations and enterprises. The introduction of the principles of complete cost accounting is promoting a solution for this large-scale national economic task.

Profit on the whole for the national economy will increase by 7.5 percent and amount to 200 billion rubles, of which amount more than 40 percent will be employed for self-financing, for developing production and for solving social tasks. The plans call for more than 50 percent of the increase in profit for all branches of the national economy to be obtained by lowering the costs for production and services. The payments from profits will amount to almost one eighth of the budgetary income.

Turnover tax represents another important source for payments from the socialist economy. In conformity with the established volumes for commodity funds and a quality change in the structure of their formation, the overall total of such payments for 1987 has been established in the amount of 96.4 billion rubles. The proportion of the turnover tax, compared to the overall income total, will amount to 22.1 percent. The turnover tax payments (excluding wind and vodka products) are increasing as a result of an expansion in the production of consumer goods. A firm and consistent policy is being followed throughout the country aimed at decisively eradicating drunkenness and alcoholism. The plans call for a further reduction in the production of vodka and liqueur-vodka products and grape wine and the cessation of fruit and berry wine production. In this regard, the plans call for the turnover tax payments from wine and vodka payments in 1987 to be less than the 1986 plan by 30 percent.

The main portion of payments by the population into the budget will be by means of state taxes. Their payments will amount to 32.4 billion rubles or slightly more than 7 percent of all budgetary resources. The taxes were computed based upon the planned wage fund and existing rates, which have remained stable over a period of many years. Pensions and various types of state allowances are completely free of taxation. Tax payments into the budget are repeatedly being exceeded by payments and privileges which the state grants to the population from the public consumption funds.

In connection with the adoption of the law on "Individual Labor Activity," greater importance is being attached to the work of financial organs concerned with uncovering those persons obtaining income from various types of occupations and exercising control over their correct taxation. Workers attached to financial organs must change radically the style and methods employed in their work with the population and they must be in the vanguard of the national campaign aimed at implementing the principle of social fairness. Persistent work must be carried out directed towards ensuring that legality is observed in a strict manner when exercising financial control. A reliable barrier must be erected against the mercenary desires of some individuals to enrich themselves at the expense of society. A decisive campaign must be waged against unearned income until it is completely eliminated.

The income tax for kolkhozes has been established in the amount of 1.2 billion rubles, or 2.5 percent more than the plan for 1986.

Financial resources added to the budgetary income are used for further improving social production and its structural reorganization, for modernization and re-equipping and for implementing the social program for the five-year plan. The budgetary expenditures for 1987, in accordance with the principal trends, have been defined in the following amounts:

(in billions of rubles)

	1986 Approved	Total	1987 Approved	Increase for 1986
National economy	235.7	247.4	56.8	11.7
Socio-cultural measures	131.9	140.6	32.3	8.7
Defense	19.1	20.2	4.6	1.1
Administration	3.0	2.9	0.7	-0.1

In addition to budgetary appropriations, the internal resources of associations and enterprises and also bank credit will be employed for financing the national economy. In all, 452.9 billion rubles, or 11.3 billion more rubles than in 1986, were used for financing the national economy. Of the overall total of expenditures, 45.4 percent were covered by the internal resources of associations and enterprises. In a number of branches where the principles of complete cost accounting and self financing are undergoing priority development, the proportion of such expenditures is even higher: in light industry -- 58.4 percent, fuel-energy complex -- 62, machine building -- 78.3 and transport -- 75.5 percent.

Budgetary expenditures reflect the priority importance being attached to implementing the social program for the five-year plan. Roughly 60 percent of all budgetary expenditures are allocated for carrying out social measures which have a direct effect on raising the standard of living of the people: construction and housing maintenance, schools, hospitals, children's pre-school institutes, clubs, palaces of culture; increasing the production of food products and consumer goods and development of the sphere of services.

(in billions of rubles)

	1986 Approved	1987 Approved
Expenditures for socio-cultural measures (excluding science)	117.5	125.0
Centralized measures for raising the standard of living for the population	0.8	2.8
Financing of the agro-industrial complex, including subsidy payments	89.4	90.4
Financing of light industry, domestic services, passenger transport	15.9	18.7
Construction, maintenance and repair of the housing fund	24.7	27.7

Considerable and ever increasing resources for satisfying the social requirements of workers are also being included in the financial plans of

enterprises, associations and organizations. The resources for material incentive funds, socio-cultural measures and housing construction alone will increase by 12.7 percent during the year and amount to more than 25 billion rubles in 1987. On the whole, in accordance with the country's financial balance, expenditures for the implementation of social measures, including the internal resources of the economy, are established at roughly 380 billion rubles, or 20 billion more rubles than the 1986 plan.

The program of our party and state for realizing maximum improvements in the material and cultural standard of living for the Soviet people is truly and specifically personified in the tremendous amount of attention being given in the 1987 plan and budget to developing the public consumption funds, formed as is known mainly by means of budgetary appropriations. The payments and benefits for the population from the public consumption funds were planned in larger amounts than indicated for 1987 in the five-year plan.

In 1987, the appropriations for socio-cultural measures from the USSR State Budget will amount to 140.6 billion rubles, or 6.6 percent more than the plan approved for this year. In addition, state enterprises and organizations, kolkhozes and consumer cooperation will employ more than 37 billion rubles worth of internal resources for the maintenance and construction of socio-cultural institutes.

For some types of socio-cultural measures, the budgetary appropriations are distributed in the following manner:

(in billions of rubles)

	1986 Approved	1987 Approved	In % of 1986
National education, science and culture	52.2	55.2	105.7
Public health and physical culture	17.5	19.1	108.9
Social insurance and social security	62.2	66.4	106.8

Commencing in September 1987, wages will be raised for teaching and leading workers attached to children's pre-school and non-scholastic institutes and for certain other categories of workers engaged in national education. The increase in wages for doctors and other medical personnel will be continued. The plans call for an increase in the wages for cultural workers.

Since the commencement of implementation of the reform of general educational and professional schools, the state has allocated 4.7 billion rubles, of which amount 2 billion rubles are planned for 1987. Considerable funds are being allocated for the computerization of all types of educational institutes and for acquiring linguaphone units and technical means of instruction for general educational schools. The expenditure norms for acquiring furniture for these schools have been increased.

In connection with the reorganization of higher and secondary specialized education, the expenditure norms for the capital repair of VUZ buildings, equipping the boarding houses of educational institutes and for carrying out mass-cultural and sports activities with pupils and students and other measures have been raised.

In the interest of improving the work of cultural-educational institutes and increasing the role they play in communistic upbringing, organizing leisure activities and developing the creative capabilities of the population, 100 million rubles are being allocated from the budget for raising the norms for the maintenance and equipping of club facilities with cultural equipment, musical instruments and other technical means.

Work is being completed on the introduction of new accounting monetary expenditure norms for acquiring equipment and implements for public health institutes. In the final analysis, the new accounting monetary norms have been raised by more than twofold for the existing network of public health institutes. The plans also call for additional appropriations in the amount of approximately .2 billion rubles for issuing medications on a favorable basis to pensioners who are receiving only minimal pensions.

The budget is allocating 39.8 billion rubles for national education and culture, with 20.8 billion rubles of this amount being used for measures for general education, the training of children and juveniles and for general educational work among adults. In addition and in connection with the conversion of a number of ministries over to complete cost accounting and self-financing, approximately 2.7 billion rubles have been allocated by means of profits and other sources for the maintenance of appropriate institutes.

The number of children in state children's pre-school institutes will increase by 497,000 and reach 16.3 million by the end of 1987. Approximately 6.3 billion rubles will be expended for the maintenance of these institutes.

Appropriations for the maintenance of general educational schools were established in the amount of 12 billion rubles. This makes it possible to create the conditions required for instructing 42 million students and for carrying out school reforms. Schools and day-care facilities will accommodate 13.4 million children. Plans call for the organization of instruction for 2.2 million six year old children in a first grade school program at children's pre-school institutes and schools.

The plans call for a budget of 9.5 billion rubles and also for .3 billion rubles obtained by means of profits and other sources for use in maintaining institutes for personnel training -- higher, secondary specialized and professional-technical educational institutes -- and for carrying out course measures.

An especially important role will be played by improvements aimed at protecting the health of Soviet people. Expenditures for public health during 1987 were defined in the amount of 19 billion rubles, with an increase in wages for certain categories of medical workers being taken into account. The



expenditures for these purposes are increasing by 8.7 percent, an amount which is higher by a factor of 1.4 than the rates of growth for all budgetary expenditures. The resources allocated for strengthening the public health institutes will make it possible to carry out disease prevention work on a broader scale and improve medical services for the population. The number of hospital beds will increase by almost 55,000 and reach 3.7 million.

The plans call for an expenditure of 66.4 billion rubles for state social insurance and social security during 1987. Compared to 1986, the appropriations for this purpose will be increased by 4.2 billion rubles, or by 6.8 percent.

The program for assisting poor families with children will be further developed. Commencing 1 January 1987, the amount of the allowances paid to invalids from birth will be increased, they will be provided with improved medical services and more favorable conditions will be created for obtaining an education and employment.

Roughly 52.2 billion rubles will be paid out in the form of pensions using budgetary funds and other sources. By the end of 1987, the number of pensioners receiving state and kolkhoz pensions will have reached 57.6 million persons.

The budget for state social insurance is included in the USSR State Budget in the amount of 55.1 billion rubles, with a growth of 6.2 percent compared to the 1986 plan. The internal income of the budget for state social insurance will cover 49.1 percent of the budgetary expenditures. The remaining portion of the expenditures will be covered by union budget funds in the amount of 28 billion rubles.

Budgetary appropriations in the amount of 2 billion rubles are available for organizing sanatorium-resort treatment and rest for manual and office workers and their children. In 1987, more than 15 million manual and office workers will be issued passes to sanatoriums and holiday homes, free of charge or on favorable terms. Sixteen million children will improve their health at young pioneer camps.

During 1987, resources from the centralized union fund for social security will be used for issuing pensions and allowances to kolkhoz members and their families in the amount of 6.3 billion rubles, including by means of kolkhoz withholdings -- 2.2 billion rubles and budgetary appropriations -- 4.1 billion rubles.

An object for special concern by the party and state has been and continues to be that of improving the housing conditions for workers. The plans for 1987 call for the construction of 125.2 million square meters of housing space, a figure which exceeds to a considerable degree the task for the five-year plan and is higher by 15.8 million square meters than the average annual amount of housing space placed in operation during the 11th Five-Year Plan. Using all financing sources, 32 billion rubles are being allocated for housing construction. At the same time, the state is calling for the issuing of subsidies over and above the apartment payments for maintenance and repair of

the housing fund under the jurisdiction of local soviets, in the amount of 6 billion rubles.

Among the economic and social tasks for the second year of the five-year plan, considerable importance is being attached to satisfying more completely the population's requirements for goods and services and, on this basis, further strengthening monetary turnover and the purchasing power of the ruble. The solutions for these tasks are associated with consistent implementation of the USSR Food Program and the all-round program for developing the production of consumer goods and the sphere of services.

The 1987 budget calls for the financial resources needed for increasing the production and sale of consumer goods, improving their quality and expanding paid services.

For financing the light industry, which produces roughly one half of all non-food goods, 9.7 billion rubles are being made available, an amount which exceeds by 17 percent the appropriations for last year. This branch was one of the first to convert over to complete cost accounting operations and self-financing. Measures are called for in the plan and budget aimed at strengthening the economic and financial levers and stimuli, for the purpose of increasing the production of goods, raising their quality and expanding the assortment. In accordance with the financial plans of ministries of the heavy industry and machine building branches, large-scale resources are being allocated for developing the production of consumer goods.

The investment of resources in the sphere of trade and domestic services will amount to 8.9 billion rubles. Retail goods turnover will reach 353.6 billion rubles. For developing trade, 7.1 billion rubles are being allocated from the budget and other sources and the volume of paid services for the population is being increased by 9.5 percent. The sales volume for domestic services in 1987 will be raised to 11.9 billion rubles, including up to 3 billion rubles in rural areas and these figures are higher than the tasks set forth in the five-year plan. The funds allocated for developing domestic services exceed by a factor of almost 1.4 the expenditures for 1986.

An important place in the plan and budget is occupied by measures further accelerating the development of the country's agro-industrial complex and implementing the tasks set forth in the Food Program. Roughly 166 billion rubles, or more than one third of all investments in the national economy, are being made available by all financing sources for developing agricultural production and the processing branches.

With the formation of USSR Gosagroprom [State Agroindustrial Committee], the necessary conditions have been created for ensuring the efficient use of state resources for priority programs associated with the intensification of agricultural production. In addition, the plans call for leading rates of growth in investments in the processing branches compared to overall investments in the agro-industrial complex. This will promote considerable improvements in quality and a reduction in product losses during all stages -- storage, transporting and processing.

The managerial mechanism introduced into branches of the agro-industrial complex is directed towards strengthening and developing cost accounting relationships. Three fourths of the profits earned by enterprises and organizations of the agro-industrial complex will remain at their disposal and be used for further social and economic development.

With the introduction of this managerial mechanism, the organization of the finances for the complex changed radically. Specifically, the established task of financing and providing credits for the agro-industrial complex as a single whole was realized. The interaction of the economy with the budget and the system for distributing the income obtained were developed based upon stable norms, with a greater role now being played by the rayon, oblast and republic agro-industrial organs. It became possible for them to create centralized financial resources which will amount to approximately 6 billion rubles in 1987. All of this will promote the development of initiative and enterprise among the agro-industrial enterprises and raise the interest of the labor collectives in achieving higher final results. The responsibility of all administrative elements is being increased.

The broad program of social measures outlined for 1987 is predicated upon a strong logistical base and further improvements in the country's productive forces. As noted during the Sixth Session of the USSR Supreme Soviet, Eleventh Convocation, the financial priorities in the budget for the second year of the five-year plan include the financing of scientific-technical progress, the practical implementation of measures aimed at raising the efficiency of social production, strengthening the regime for achieving economies and strengthening cost accounting relationships in the national economy.

In the tasks for 1987, special priority is being assigned to the task of strengthening the logistical base for developing socialist industry. This year, industry is being allocated 233.2 billion rubles from the budget and other sources and this amounts to more than one half of all investments in the national economy. The large-scale resources being assigned to this branch by the state are making it possible to satisfy more completely the requirements of the national economy and the population for high quality industrial products and to strengthen the logistical base for other branches of the national economy.

Financial resources are used mainly in the key branches, those which influence scientific-technical progress in the national economy. The financing of machine building is increasing at leading rates, with the expenditures for developing machine building increasing by 11.5 percent. In the finances for industry, special attention is being given to the fuel-energy complex, with one out of every four rubles of state investment in industry being assigned to this complex.

The tasks of the plan and budget are directed towards radically improving the work concerned with realizing economies in the use of material, labor and financial resources. Towards this end and compared to last year, higher rates are being planned for lowering labor and material-intensiveness. The production costs for industrial output must be reduced by 0.8 percent,

compared to the average 0.3 percent achieved during the years of the 11th Five-Year Plan.

One of the most important economic trends is that of shortening the turnover time for raw materials, other materials and finished products. At the present time, large above-normal supplies of commodity stocks have accumulated at many enterprises. Actually, this signifies that considerable resources are being removed from national economic circulation. In addition, the creation of surplus supplies increases tension in the material support for the planned production volumes. For the current five-year plan, norms have been established for the ministries, departments, associations and enterprises for the maximum level of supplies of commodity stocks per ruble of production volume and this constitutes an important measure for drawing accumulated values back into economic circulation. In 1987, 1.3 billion rubles must be released from circulation in industry alone. Importance is being attached to ensuring that the enterprises and financial and bank organs exercise strong control over the observance of the established ratios.

The true embodiment, in the life of the complex, of the measures called for in the plan and budget for 1987, will depend to a large degree upon how effectively use is made of the resources allocated for developing the complex. The state expenditures for capital investments will amount to 182.4 billion rubles, or 8.4 billion rubles more than in 1986.

The plans call for the financing of capital investments to be carried out using mainly the internal resources of enterprises and organizations in the form of amortization deductions, profits, the fund for production development and the fund for socio-cultural measures and housing construction and also through the use of bank credit. In all, the plans call for the use of internal resources in the amount of 91.7 billion rubles, bank loans -- 4.2 billion rubles and budgetary appropriations -- 76.5 billion rubles for this purpose. For the purpose of reducing the above-plan supplies of equipment and materials, the plan and budget for 1987 call for tasks for mobilizing the internal resources in capital construction in the amount of 3.2 billion rubles.

The branches of material production are being presented with priorities for strengthening their own economic base and solving social problems. They are being reinforced by considerable resources. In this regard, an increase in the return from state investments is required in all sectors. Today each ruble employed in the economic sphere must be utilized fully in the interest of accelerating the country's socio-economic development.

The plan and budget for 1987 call for further socio-economic development for all of the union republics, development aimed at achieving steady improvements in national well-being.

The union republic budgets are included in the USSR State Budget for 1987 in the overall amount of 193.9 billion rubles, an increase of 10.1 billion rubles or 5.5 percent above the figure for 1986.

The union republic budgets take into account measures for achieving a more complete combination of the branch and territorial principles for economic management, for expanding the financial potential of the soviets of worker's deputies and for increasing their interest in raising the operational efficiency of all associations, enterprises and organizations located on their territory, as called for in the decree of the CPSU Central Committee, the Presidium of the USSR Supreme Soviet and the USSR Council of Ministers entitled "Measures for Further Increasing the Role and Responsibility of Soviets of Worker's Deputies in Accelerating Socio-Economic Development in Light of the Decisions Handed Down During the 27th CPSU Congress."

All of the measures outlined in the plan for developing the economies and culture of the union republics and for raising the material and cultural standard of living of the Soviet people are supported by monetary funds based upon economic payments to the councils of ministers of union republics, other income turned over completely to the union republic budgets and also withholdings from all-union state taxes and income. The income which is turned over completely to the union republic budgets is defined in the amount of 59.1 billion rubles and the withholdings from all-union state taxes and income and funds transferred from the union budget for paying for the difference in prices for livestock and milk -- in the amount of 100.2 billion rubles.

Using all available sources, 190 billion rubles (9.4 billion more rubles than the plan for last year) will be made available for financing the national economy of union republics, including an allocation of 98.6 billion rubles from the budget.

A broad program of socio-cultural measures is being financed using the state budgets of union republics. The expenditures for this purpose amount to 89 billion rubles, or 63.3 percent of all budgetary expenditures for this purpose.

The execution of the 1987 budget will require great organizational activity in all economic elements. This year the financial organs are confronted by important tasks concerned with strengthening the country's financial base. In carrying out their work, they must follow the rule -- strive not only to execute the budget well, but also to be on the leading edge of the campaign to improve managerial efficiency. This requires a change in the operational style and methods employed by the financial organs, formalism must be overcome and all practical work must be directed towards reorganizing financial-economic work in all areas.

The economic leaders and local organs must change radically their attitude towards finances. A situation must be achieved wherein, during the second year of the five-year plan, this effective lever for raising production efficiency is being used to the maximum possible degree at each enterprise and in each organization.

Reorganization is unthinkable in the absence of a radical change in the existing operational methods, which at the present time are not very

effective. Success in carrying out this work will be ensured by the personnel involved. An atmosphere must be created in all of the collectives which will allow each worker, regardless of the sector in which he works, to perform in an energetic and confident manner and to achieve his full potential. Openness must be expanded in every possible way and control from below strengthened. Improvements in organizational ability and a strengthening of labor discipline will serve to guarantee success. The party requires that the campaign to achieve high discipline be transformed into a short-term campaign and that the program for strengthening order and discipline be carried out in a constant and strict manner. A consistent policy must be followed aimed at intensifying personnel exactingness, raising the responsibility of each worker for his assigned task and supporting and encouraging those who by their actions are proving their responsible attitude towards their work.

The work of each financial organ must be organized in a manner such that the workers spend a maximum amount of their working time resolving economic questions and problems and preparing recommendations which will ensure the successful execution of the budget. An equally important role in carrying out this work must be played by the higher financial organs.

The financial organs must display concern for strengthening contacts with the planning and financial staffs of associations, enterprises and organizations, all of which are responsible for furnishing methodological and practical assistance in financial-economic operations, implementing measures for strengthening the financial situation and eliminating existing shortcomings. A systematic study should be undertaken of the status of affairs in the various areas and, on this basis, recommendations should be introduced for mobilizing reserves and increasing the budgetary income.

The analysis of the economics and finances of enterprises and associations which converted over to stable long-term norms in their relationships with the budget should be raised to a new level from the standpoint of quality. Under the new management conditions, they now will be interested in purposeful and joint work with the financial organs and in a more complete mobilization of available reserves, since the additional resources uncovered in accordance with the approved norms will remain with the enterprises and be used for economic and social development. Under these conditions, the budgetary income will increase.

At the same time, the financial organs must exercise greater control over the correct formation of production costs at enterprises and ensure that the production costs for products produced do not include expenditures, the financing of which must be carried out by means of profits remaining at their disposal.

A thorough study by the financial organs of the effect of the new managerial methods, the indicators and norms for the operational results of enterprises and associations and the development of sound recommendations and proposals will promote to a large degree a further strengthening of cost accounting and improvements in the practice of financing the national economy.

The successful execution of the USSR State Budget for 1987 requires the maximum mobilization of intra-farm reserves, more complete utilization of the opportunities available for lowering expenditures, a search for genuine methods for achieving additional production and improvements in the quality and an expansion in the assortment of consumer goods.

During an enlarged meeting of the Board of the USSR Ministry of Finances, the plan for the Principal Questions of Economic and Control Work of the USSR Ministry of Finances for 1987, in light of the decisions handed down during the 27th Party Congress, the June (1986) Plenum of the CPSU Central Committee and the 6th Session of the USSR Supreme Soviet, 11th Convocation, was examined and adopted. By a decision of the Board, the financial system was assigned the task of raising the level of financial-economic work and searching for methods for exerting a more active financial-credit effect on accelerating the conversion of the economy over to the path of intensive development. In carrying out this plan, it will be necessary to disclose the reasons for the shortcomings in the financial-economic activities of ministries, departments, associations and enterprises, losses, unproductive expenditures mismanagement and waste and to undertake effective measures aimed at eliminating them, raising economic responsibility for the final operational results and fulfilling budgetary obligations.

Timeliness and high quality in carrying out the measures called for in the plan for economic and control work will promote a stronger financial position and budgetary growth.

#### Improvements in Planning Practice

Moscow FINANSY SSSR in Russian No 1, Jan 87 pp 13-19

[Article by V.E. Orlov, USSR deputy minister of finance: "On Improvements in Planning Practice and Payments Into the Budget"]

[Text] The task of substantially reorganizing the financial-credit mechanism, intensifying its effect with regard to raising production efficiency, strengthening monetary circulation and cost accounting and improving the final results was assigned by the 27th CPSU Congress. In the process, special attention was given to the system of making payments into the budget. "The time is obviously at hand" commented the general secretary of the CPSU Central Committee M.S. Gorbachev, in a report delivered before the congress, "for improving the practice of levying turnover taxes and withholding payments from profits and other income for the budget. Their amounts and the system for making payments must exert an active effect on lowering production costs, raising output quality and accelerating production operations."

Having entered the new stage in economic and social achievements and in analyzing accumulated experience, the party has drawn a conclusion regarding the need for radically raising the efficiency of our economy and, it follows, strengthening soviet finances. In solving the established tasks, the USSR Ministry of Finances, the organ charged with implementing the financial policies of the state, is entrusted with special responsibility for creating a

stable financial base for the country and for ensuring an efficient regime for achieving economies and for protecting socialist property.

The USSR State Budget occupies a central position in the system of socialist finances. By means of the budget, the socialist state distributes and redistributes a considerable portion of the country's national income. The USSR State Budget is an important element of the entire system of national economic planning; it participates actively in forming the cost structure for social production. Under modern conditions, with the high rates for scientific-technical progress arousing exceptional economic dynamism and national economic relationships characterized by extreme complications, the role played by the budget in the distribution and redistribution of national income and also in regulating cost proportions in the plan fulfillment process is increasing substantially.

Under conditions involving an expansion in the rights of production associations (enterprises) in planning and economic activity, a strengthening of cost accounting operations and a gradual conversion of associations (enterprises) over to self-financing and self-support, a greater need exists for employing flexible and more improved forms for collecting turnover taxes and payments from profits and other receipts for budgetary purposes, such that their amounts and the system of payments will have an active effect on lowering production costs, raising the quality of output and accelerating product sales. In this regard, as noted in the report entitled "Basic Directions for the Economic and Social Development of the USSR During the 1986-1990 Period and for the Period Up to the Year 2000," delivered during the 27th CPSU Congress, the financial-credit mechanism requires "substantial changes so as to ensure that it is directed towards strengthening the anti-expenditure character of production development."

Analysis reveals that during the period from 1970 to 1985 and especially during the years of the 11th Five-Year Plan the financing of the expenditures called for in the USSR State Budget for development of the national economic branches were carried out from year to year with an increasing amount of tension. For example, the average annual rate of growth for payments into the budget from the principal incomes -- turnover tax and withholdings from profits -- amounted to 5.9 percent during the 1971-1980 period and only 3.5 percent during the 1981-1985 period. At the same time, the average annual rate of growth in appropriations from the budget for national economic development during the 9th and 10th five-year plans amounted to 8 percent and in 1981-1985 -- 6.4 percent, that is, it clearly exceeded the figure for payments from the principal incomes.

The formation of a stable income base for the state budget constitutes a large-scale national economic task, a solution for which is possible only on the basis of comprehensive intensification of the economy, an increase in the efficiency of social production based upon accelerated scientific-technical progress and improvements in the economic mechanism.

Economic experiments carried out in various branches of the national economy definitely activated a system of financial and credit levers. However, changes introduced into the financial-credit mechanism touched only upon its



individual elements and did not fully promote the consistent implementation of cost accounting principles. During this stage in improving the economic mechanism, effective forms still were not found for strengthening the anti-expenditure direction of the financial mechanism and reliable guarantees were not created for the right of associations to handle their financial resources on an independent basis. The formation and use of economic incentive funds were not oriented fully towards achieving high final results and the required economic responsibility of associations and labor collectives for operational results and for the timely and complete fulfillment of obligations to the state by suppliers and consumers was not ensured.

The existing system of payments from profits was characterized by many complications. The creation for a number of national economic branches and even individual enterprises of specific conditions for the distribution and use of profits led to a situation wherein, prior to 1 January 1987, there were 11 systems for calculating the budget in industry alone. If to this we add that the payments from profits included capital payments and payments from net surplus profit and that before determining the net surplus profit it would be necessary to complete a minimum of 50 different computations, not counting the need to carry out several hundred operations concerned with calculating the incentive funds included in this computation, then it is obvious that the system of budgetary relationships is in need of considerable simplification.

During the 1985-1986 period, when the system of long-term and stable norms for planning and the use of material, labor and financial resources was developed and partially introduced into operations on a more extensive scale and when some urgency was attached to the problem of expanding the authority of labor collectives of enterprises and associations, the USSR Ministry of Finances carried out work aimed at abolishing the numerous systems available for making payments into the budget. They were replaced by payments by enterprises and organizations, carried out on a centralized basis, in the form of withholdings for the budget from profits in accordance with a stable norm for the profit computed. Commencing 1 January 1987, norms for payments into the budget from profits based upon five-year plan indicators were established for enterprises of a majority of the industrial ministries, for the years of the 12th Five-Year Plan. An important feature of this work is the restoration of proper order in the redistribution of profits among enterprises. Unfortunately, in recent years there have been more frequent instances of industrial ministries establishing lowered payment amounts for efficiently operating enterprises in the interest of reducing their payments into the budget. For enterprises which systematically failed to fulfill their profit plans, the norm for budgetary withholdings was overstated; the payments were established not only by means of profit but also by means of funds made available for redistribution.

The introduction of an effective system of payments into the budget, one understood by all, from the leader of an enterprise to a worker, is aimed at activating a campaign to fulfill and over-fulfill the plans for production and profits and also to achieve a radical simplification in the organization of financial organ operations concerned with controlling payments into the budget. Simultaneously, time is made available for analyzing more thoroughly the financial-economic activities of enterprises.

The implementation of the mentioned measures does not eliminate the negative reaction of a number of ministries and departments, which over the past 20 years, when carrying out experiments in the area of management, have become accustomed to the fact that the redistribution of savings mainly in favor of enterprises and organizations and increases in the various funds for stimulation and incentives, in the absence of a correlation with growth in profits, are considered to be normal phenomena. The faulty practice of changing the indicators for enterprises, including financial indicators, has been discussed repeatedly. However, even in 1986, during the period of intensive preparation for converting entire ministries over to complete cost accounting operations, the disease of plan correction made its presence known. Some ministries, when developing recommendations for converting enterprises over to the new conditions for management, referred to the operational peculiarities of the branch and attempted, as much as possible, to retain the resources at their disposal. For example, USSR Mingazprom [Ministry of the Gas Industry], when preparing a draft resolution for its conversion over to the new conditions for management, called for the enterprises to retain all of the above-plan profit at their disposal, while at the same time ministries which operate under these conditions were making payments into the budget from above-plan profits, according to an approved norm or on some other basis.

Among the complex of measures for improving the economic mechanism, a special place is occupied by the normative method for distributing profits. This method involves a basically new system for distributing profits, one aimed at improving the interrelationships of branches, associations and enterprises with the state budget, in accordance with payments from profits based upon norms. It makes it possible to make extensive use of the principle of self-support by means of financial resources.

In the middle of 1986, USSR Minfin [Ministry of Finances], jointly with NIFI [Scientific Research Institute of Finance] and GVTs [Main Computer Center] of the ministry, developed new principles for payments into the budget from the profits of industrial enterprises based upon long-term norms. During the course of this work, different variants were examined and computed for solving the assigned task, with the superimposing of developed models (plans) using a computer and the data from enterprises of 18 principal industrial ministries for the past 4 years. The following initial conditions were used for all of the variants:

- 1) the total amount of payments into the budget for the proposed system must on the whole conform to the total amount of payments according to the existing system. This condition was recognized as being important, since the proposed system must be realistic and not require, at the moment of introduction, a sharp change in the existing quantitative proportions for distributing profit between the budget and the enterprises;

- 2) a system (or scale) of rates should be selected, the use of which during the initial period would ensure minimal deviations of the proposed payments from the existing ones (according to their overall totals);

3) this system of rates embodies a certain progression in the use of payments into the state budget compared to the profit remaining at an establishment, such that during the use of these rates a priority is ensured for state interests compared to the interests of individual enterprises and thus a settling of surplus financial resources among enterprises (especially highly profitable enterprises) is averted.

In solving the assigned task, the question of introducing withholdings from the profits of enterprises of union subordination into local budgets is not examined separately, since a solution for it is possible for any system of profit distribution, with no complications occurring. The distribution of that portion of the computed profit remaining at enterprises following fulfillment of their obligations to the budget in terms of payments from profits is also not examined. This question was handled based upon the feasibility of utilizing the experience of the AvtoVAZ PO [Planning Department] and upon distribution of the profits remaining at the enterprises (after a definite portion of it -- in accordance with the norms -- was transferred over to the centralized funds or ministry's reserves) among the economic incentive funds of the enterprises based upon direct withholdings from the profits (in accordance with the norms).

The chief variant called for a payment to be collected for the funds in accordance with norms differentiated depending upon the profitability level, together with normative withholdings from the computed profit for adding to the budget. The purpose and meaning of this differentiation -- to strengthen the role played by payments into the funds, so as to attach greater anti-expenditure meaning to the economic mechanism, while taking into account the true profitability of enterprises. Given the existing rates (3 and 6 percent), this task is not being solved for many enterprises.

Genuine economic practice is such that, given the existing tremendous "dispersion" of profitability levels for enterprises having a high profitability, the effect of this payment is not experienced, while those having a low profitability are released from it. In this regard, a stronger (from 1 to 15 percent) differentiation of norms for payments into the funds would permit the following:

-- an expansion in the sphere of its use by means of taxation -- at relatively low rates -- of the productive capital of those enterprises having a low profitability, which earlier were free of such taxation;

-- an increase in the effect of this payment on enterprises having a high profitability, while motivating them towards more complete utilization of their production potential;

-- to level off to a greater degree the amounts of computed profit for the enterprises and thus create definite conditions for the establishment, where possible, of group norms for a second payment -- normative withholdings from computed profit.

Depending upon the profitability level, the variant with differentiated norms for payments into the funds was approved by imposing planned data for a large

number of enterprises. An analysis of the data obtained led to the following conclusions:

-- the differentiation of norms for payments into the funds, according to the profitability level, makes it possible to increase considerably the number of enterprise-payers;

-- enterprises having a minimal "threshold" of profitability, below which the enterprises should ideally be released from having to make payments into the funds, should be singled out in each branch;

-- the norms for payments into the funds should be "rounded off" to whole numbers and, to the degree that it is possible, one average rate should be determined for each;

-- of the totality of enterprises, those for which the payment rates can only be individual should be singled out;

-- under conditions involving a differentiation of payments into the funds according to the profitability levels, it was not possible to ensure a leveling off of the norms according to the second payment -- withholdings from computed profit for adding to the budget. For the introduction of group norms according to this payment, an independent and separate grouping was required in accordance with the proportion of these withholdings compared to the computed profit. At the same time, a single norm for this payment is practically impossible: the only form in which it can be represented -- the norm for growth ("growth norm").

This forced a continuation of the search and, as a result, a method was approved for two payments from profits (payments into the funds and normative withholdings), collected on the basis of progressive norms. In conformity with this method, the initial (basic) norms for payments into the funds and the initial (basic) norms for withholdings from profits, for the year in which a conversion was made over to the new system, are increased according to the scale of coefficients and depending upon the rates of increase in productive capital and the rates of increase in balance profit. With the aid of the first indicator, the enterprises are punished for the fixed and working capital additionally attracted into production and the idea of reinforcing the anti-expenditure trend in the economic mechanism is realized. The second of these indicators is aimed at encouraging efficiency and an acceleration in the rates of growth for profit, compared to the rates of growth in productive capital, and stimulating a greater output-capital ratio.

The scale consists of two lines of rates (coefficients): one is for determining the norms for payments into the funds and the other -- for determining the norms for withholdings from the profit balance. It is used not only in the event of an increase in the value of the productive capital but also when this value is lowered in order to encourage the retirement of obsolete capital and also in the event not only of an increase in the profit balance but also following a reduction in it.

Corrections to the norms for payments into the funds and the norms for withholdings from the profit balance definitely made it possible to realize the principle of equal stimulation for equal results.

In essence, this system embodies the idea of progressive growth in the rates for withholdings from profits for adding to the budget, as employed at the Sumy Machine Building NPO [scientific production association] imeni M.V. Frunze, but in conformity not with one but rather with two payments, with uniform increases for all of the norms embodied in the scale of coefficients. The increase in the norm for payments from profit at the Sumy Machine Building NPO imeni M.V. Frunze was established for the years of the five-year plan; it increased by 20 percent of the increase in profit according to the plan for the given year and it was individual in nature. In our opinion, the rates for increasing the norms can be assigned in a differentiated manner, with all of the branch's enterprises being arranged into groups (highly profitable, rapidly developing, groups with moderate potential, weak groups) in advance.

The virtues of this method are as follows. It is clearly anti-expenditure in nature, since it is interested in the efficient use of existing productive capital and the introduction into operations only of new capital that will ensure a considerable increase in profit, since with growth in the productive capital the enterprises will be forced to make payments into the budget for it in accordance with a higher norm. At the same time, the enterprises are interested in growth in profits, since this brings about an increase in the total amount of profit left at their disposal. Continuity is maintained in the system of payments called for by the new managerial methods, a system which is based upon two payments from profits, with its stimulating effect increasing at the same time.

The results from imposing this method on 18 industrial ministries have shown comparatively few deviations from the existing total amount of payments from all ministries, with the exception of the extractive branches.

Certainly, even this system is not ideal. It retains the pressure of the basic ratios which, it is true, must weaken with the passage of time. In addition, it fails to ensure fully equal stimulation for equal results. Towards this end, certain corrections to the basic norms for payments into the funds are required during the start-up period, so as to place all of the enterprises under relatively identical conditions with regard to the productive capital.

It is our opinion that the best variants for the economic development of enterprises are those in which an increase in the profit balance is achieved simultaneously with a reduction or a change in the productive capital. The least advantageous but most realistic variant from the standpoint of the enterprises is that which ensures leading rates of growth in the profit balance compared to the rates of growth for productive capital. Such a situation is very typical for machine building and also for some branches of heavy industry.

The efficiency of the system and the effectiveness of selection by an enterprise of a particular path for development are largely determined by the ratio between the incentive for growth in profit and the "penalty" for growth in productive capital. Different variants for these ratios were assigned in the computations. Enterprises at which the ratios for the achieved rates of growth in profit balance and in the rates of growth for productive capital were higher than the computed planned rates obtain positive results, that is, increases are realized in the profit left over. On the other hand, at enterprises where the ratio for these indicators is lower than that planned, a reduction is noted in the amount of profit left over.

Thus, this system first of all stimulates the selection by enterprises of variants for development which ensure growth in the output-capital ratio and an increase in profitability and this meets the requirements for production intensification. Secondly, it ensures relatively equal incentives (and penalties) for equal results. The system of norms orients the enterprises towards achieving the best final results with minimal expenditures. They must be interested in rapid growth in the profit balance and mainly through a reduction in production costs.

The working out of the problem concerned with developing long-term norms for payments into the budget from profits has made it possible to solve the following:

In order to intensify the effect of payments for productive capital on an increase in the output-capital ratio, an acceleration in the turnover of working capital and on the effectiveness of capital investments, a change was introduced in the system for determining the norms for the payments for productive capital. For the 1987-1990 period, the ministries and departments are authorized to establish for the associations, enterprises and organizations a payment for productive capital in the amount of from 2 to 12 percent (2.3 and so forth) of the value of the productive capital, while bearing in mind that it must be the principal type of payment into the budget from profits. Those associations, enterprises and organizations which, when determining the payments for productive capital in a minimal amount, lack sufficient profit for covering planned expenditures, are released from having to make payments into the funds.

Commencing 1 January 1987, the collection of payments for the funds, according to norms differentiated depending upon the profitability level and computed with respect to the productive capital, will be carried out at enterprises of USSR Minkhimmash [Ministry of Chemical and Petroleum Machine Building].

Despite considerable standardization of the payments into the budget, a need exists for continuing the work concerned with reducing to a minimum the peculiarities associated with distributing profit among individual ministries and departments.

An important trend with regard to improving the financial-credit mechanism is that of intensifying the role played by the turnover tax. As an economic

lever, this type of budgetary income must promote a strengthening of cost accounting in the economy and guarantee stable budgetary revenue.

The country's existing price formation system and other economic, administrative and other conditions have produced a practice wherein the turnover tax is paid mainly by enterprises of Group "B" branches.

The collection of this tax in the branches of heavy industry (excluding machine building) has still not been developed extensively and is associated mainly with the sale of petroleum products, electric power and gas. As a result of the reduction in the production and sale of wine and vodka products, the revenue from turnover tax is also declining. All branches of the national economy are confronted with the serious task of making up for the drop in income. In the future, the turnover tax will continue to be a most important source for state budgetary income. The requirement for improving the methods for planning and obtaining this income is increasing.

The development of and improvements in the system of wholesale prices for enterprises have ensured the creation of conditions under which 84 percent of the turnover tax appears in the form of the difference between the retail and wholesale prices. This computational method has a tendency to expand, since the existence of wholesale prices makes it possible to determine more accurately the operational results of enterprises.

When establishing the amounts of the tax rates on the whole, an optimum ratio is achieved between the profits of enterprises and payments into the budget, conditions are created for developing interest among the enterprises in the production of new goods and the use of local raw materials and waste products is stimulated.

Today, approximately 79 percent of the turnover tax is being applied directly to the budget by industrial enterprises and 21 percent -- by wholesale-marketing organizations. At the same time, an opinion is being expressed regarding the advisability of turnover tax payments being made into the budget by the retail network. However, it is our opinion that this recommendation would result only in a senseless increase in the work volumes without producing any considerable effect on the whole. According to preliminary computations, if this recommendation is adopted the number of turnover tax payers will increase threefold and a sharp increase in the number of accounting workers will be required for introducing an accounting system for goods in retail and wholesale prices into operations at trade enterprises.

As revealed by more than a half century of operational practice, the turnover tax, as an independent form of net income added to the budget together with payments from profits, ensures the stability of budgetary income. At the same time, the existing schedules for payments guarantee uniformity in these additions to the budget, thus making it possible to carry out the required redistribution of a portion of the net income of society, both from a territorial standpoint and among economic branches.

Further improvements in the methods for planning and paying the turnover tax are largely dependent upon improvements being realized in price formation in

the national economy and upon a more economically sound structure for wholesale and retail prices, one which would ensure the formation of that portion of savings that could be added to the budget in the form of a tax. It is our opinion that a requirement also exists for reducing certain types of privileges and benefits by means of the turnover tax. Finally, solutions must be found for a number of problems such that, with the aid of the turnover tax, producers will be stimulated into increasing their production of goods for the population.

Although it is not of itself a price-forming factor, the turnover tax nevertheless is directly dependent upon the wholesale and retail price levels. At the present time, the industries engaged in producing automobiles, motorcycles, television sets, radios, refrigerators, washing machines, vacuum cleaners and a number of other taxable products of extended use are constantly expanding their assortment of products and modifying them mainly by means of more modern design and finishing off. However, a considerable increase in production costs occurs from time to time in the process and, as a result, a reduction takes place in the amount of turnover tax with the production of each subsequent model of a product. Since product modifications are occurring more frequently, the total amount of turnover tax is declining noticeably. Thus it appears feasible to establish a system in which the retail price level for new models of goods and products would be established to the extent of a change in the wholesale prices and would not lead to a reduction in the turnover tax receipts. At the same time, strong financial control must be exercised over the development of new and the revision of existing wholesale prices, while taking effective measures aimed at preventing a reduction in the turnover tax receipts.

In order to solve the new tasks confronting the financial organs, importance is attached to the stability of the turnover tax rates. Over a period of many years, a system of group turnover tax rates has existed throughout the country, the use of which has guaranteed the retention for an enterprise or group of enterprises of a normal production profitability, regardless of the presence within a particular group of individual products or goods, the production of which at the established rates was unprofitable or, to the contrary, was accompanied by a raised profitability. Such a rate structure system was sufficiently suitable not only for the financial organs but also for industry, since it simplified the equipment used in accounting work and it presented the enterprises with the possibility of regulating the profit to be realized from the various products and goods.

However, over the past few years some enterprises have started removing unprofitable goods from production and in the process they have referred to the existing turnover tax rates. Under these conditions, the USSR Ministry of Finances was forced into having to reject the former system employed for forming the group tax rates and to converting over to approving individual rates in a manner so as to ensure profits from all goods and products without exception. The tax rates are now being examined annually. This has raised the need for applying annual refinements to the profit totals for ministries and departments, albeit quite often in small amounts.



At the present time, in accordance with a recommendation by the USSR Ministry of Finances, a system has been introduced which calls for the approval (review) of turnover tax rates to be carried out once during each five-year plan and for their amounts to be refined during this period only when a change takes place in the established system of prices and rates.

A change in the managerial conditions requires a new approach for the system of payments into the budget on the whole and for the turnover tax in particular.

Unfortunately, proper attention is not being given in all areas to the measures being carried out in this regard. In the interest of simplifying the work of preparing documentation, USSR Minfin [Ministry of Finances] has recommended that the USSR Ministry of Trade, commencing 1 January 1987, conduct an experiment in the knitted goods industry, the conditions of which would require the turnover tax to be paid by the enterprise-producers rather than by the wholesale-marketing bases. But indecision in the approach being used for serious problems and fear of disrupting the existing operational rhythm of the "upper levels" of the central apparatus are preventing new developments from emerging even in the form of the experiment which, it bears mentioning, is being supported by practical workers attached to wholesale trade bases.

An important trend in the work being performed by the USSR Ministry of Finances is that of reducing documentation. Improvements in the system of payments into the budget from profits present a real opportunity for simplifying the work concerned with state income and, it follows, for reducing the volume of documentation. Thus, commencing 1 July 1986, the enterprises of USSR Minneftekhimprom [Ministry of the Refining and Petrochemical Industry], USSR Minudobreniy [Ministry of Mineral Fertilizer Production] and USSR Minkhimmash [Ministry of Chemical and Petroleum Machine Building] will make payments into the budget from profits twice every month instead of three times. A number of measures have been adopted which make it possible to reject the presentation of detailed reports having to do with payments into the budget.

Improvements are required in the system for computing and collecting other payments for the budget (income tax, payments for water, tax for the showing of movie film and others). A number of decisions have already been adopted and others are in the preparation stage.

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## PRICE REFORM DISCUSSIONS CONTINUE

## Contract Prices Attacked

Moscow SOTSIALISTICHESKAYA INDUSTRIYA in Russian 31 Mar 87 p 2

[Article by A. Boldyrev, economist: "Who Sets the Price?"; first paragraph is source introduction]

[Text] Moscow--The decision to hold a national discussion on the draft law is designed to increase the activeness of the mass of workers and overcome conservatism in management. Here, we must not repeat the mistakes of past reforms of the economic mechanism, when under pressure from the departments of the all-union Gosplan, Gosstroy, State Committee on Prices and the Ministry of Finance instead of the abolished outworn economic principles, first and foremost cost pricing, it was decided to influence the economics of production through "good" volume indicators.

The draft law also contains articles that were obviously written from the standpoint of departmentalism. Take, for example, article 1 paragraph 3, where it talks about the main task of the enterprise and about satisfying public demand and the demand of citizens for its output, work or services. At first glance it seems as if all the words in this paragraph are correct. But if one reads into it and penetrates its nature it turns out that while satisfying consumer demand the enterprise is concerned primarily with improving its own well-being and the well-being of the members of its collective. Not a single word is mentioned about the fact that satisfying society's needs should be based only on price reductions and improved quality.

The main mistake in all previous transformations of the economic mechanism has been precisely that the interests of the enterprise were moved to the forefront, while what was simply the vital interest of management was to the detriment of the interests of the state and of society as a whole. This trend is also obvious in the draft law.

Remember that the CPSU Central Committee and USSR Council of Ministers decree on the economic mechanism (No 695 of 1979) adopted a new principle for price setting. The ministries, however, forced the USSR State Committee on Prices to retain the earlier conditions prevailing for calculating profit as part of the wholesale price. It permitted to be excluded from prime cost not all the

value of objects of labor but only direct material expenditures: if, for example, the cost of fuel and energy was not calculated separately it was not excluded. Moreover, in the new wholesale prices the size of profit was set below the level of profit in the old prices, in which it was calculated mainly (70 to 80 percent) from the value of the objects of labor. As a result, as before, in the new prices profit was not in line with the material return from labor, that is, in the prices for some articles it was low while in others it was unjustifiably high; which gives rise to variations in profit for articles and the unavoidable pursuit of more expensive products.

It seems that the restructuring should affect primarily questions of price setting. But neither in industry nor in construction are they about to change this. Moreover, on the basis of the method adopted for calculating profit as part of the wholesale price it is intended to use contract prices (article 17 paragraphs 7 and 9). This will impart even greater force to the legal foundation for the process of price increases. The fact is that the enterprise is a producer of goods and a trading enterprise is likewise interested equally in increasing prices. Only the purchaser, that is, the whole of society, is not interested in this. But no one asks the purchaser about the matter when contract prices are set. Therefore, they can "be inflated" and, just as now, prices will increase for index "N" articles.

Contract prices, which during the course of discussion of the draft have been hailed by some readers, have yet another very bad characteristic. They cannot eliminate shortages even though they are adopted under the flag of the struggle against shortages by means of expanding the production of items in short supply. In fact, for an enterprise that has set contract prices for articles, there is now no thought at all of expanding output. It will keep the purchaser on a starvation diet for as long as possible. In the pursuit of profit it will probably try to cut back on the production of other articles so as to bring them under the level of the contract prices. With the aid of the contract prices industry will be able to "finance itself" with the higher profit obtained from the creation of deliberate shortages.

In construction contract prices are even more baneful than in industry. This is connected with the fact that they are to be applied for all construction sites and will be introduced in 1987 without any of the essential preparation even though they are being touted as the most important element of the new economic mechanism. A campaign of national praise for this innovation has been initiated, and this even goes as far as the deliberate assertion that contract prices will supposedly make it possible to reduce estimate costs for construction and will allegedly be an anticost factor.

This is not true not least because contract prices are greater than today's estimate costs by an amount equal to the "spread" that the contractor decides to obtain from the state in collusion with the client and the design organization and the premiums and other necessities that he will share with them. This is the latest indulgence granted the contractors, the latest repetition of mismanagement and waste.

Just try walking onto the territory of a construction site enclosed by a high and solid fence. At your first step inside the gate you will inevitably fall

into a pile of cement or into a pool of something that has been spilled, and at your second step you will stumble over a block of concrete, while at the third step you will stumble into a snare of wire sticking out as a memorial to a whole set of buried waste ... And the contractor makes his profit.

The superposed costs and planned accumulations for the contract organizations are calculated as part of the estimate costs as part of the total volume of direct expenditures (materials, wages and the operation of equipment). In this connection the lion's share of the incomes is directly proportional to the cost of the materials "overused" and not the work. The question of changing price setting in construction was raised long ago but the USSR Gosstroy can in no way persuade the contract ministries even though it is high time that it made use of its power.

In order to eliminate the wasteful phenomena in the economy and truly effect a restructuring and acceleration in socioeconomic development it is necessary to adopt a unified pricing system: profit as part of wholesale prices, superposed costs and planned accumulations as part of the estimate cost of construction should be calculated from the costs of live labor (wages) and the enhanced productive force of labor (depreciation) using the same profitability norm in all sectors of industry and the all-union cost norms in construction. That is, in line with the principle that was put forward in the CPSU Central Committee and USSR Council of Ministers decree No 695 as long ago as 1979. Wages and depreciation are formed under national conditions and there is therefore no economic justification for variable profitability for enterprises as at present.

In order to enhance the role of economic incentives to improve the quality of goods and of construction projects it is advisable to arrange things so that the state standard for quality is the evaluation "good." The norms for profitability and planned accumulations, and also the norms for work done by the executors, are set only from that level. In the case of excellent quality profit and planned accumulation are increased while the norms for worker manufacturing work are reduced. In the case of only a satisfactory rating everything is the other way round.

I think that it is possible to insure that enterprise profit and workers' wages be justified by the material return from labor and that the interests of the enterprises and of individual workers coincide with the interests of the state and the whole of society.

#### Contract Prices Defended

Moscow EKONOMICHESKAYA GAZETA in Russian No 15, Apr 87 p 8

[Article by A. Komin, doctor of economic sciences: "Production Efficiency in the Mirror of Prices"]

[Text] Extension of the rights of enterprises, strengthened money-exchange relationships, and the use of normativ methods in planning and management are all making new demands on the economic justification for prices as a very important national economic normativ. At the various levels of management the

price system should unambiguously characterize economic processes and the results of economic activity and orient both lower and higher elements on improved efficiency in the economy and the achievement of high final results.

At the CPSU Central Committee January (1987) Plenum M.S. Gorbachev emphasized the following: "Cautions about the role of money-exchange relationships, and sometimes setting them off directly against socialism as something alien have led to voluntarist approaches to the economy and to an underestimation of cost accounting and wage 'leveling,' and have given rise to subjectivist principles in price setting, the disruption of money circulation and inattention to questions of regulating supply and demand.

#### Cost Form.

Subjectivist views in price setting have been extensively disseminated in the oversimplified approach to complex economic categories such as cost, cost forms, and processes involving the balance between production and consumption and supply and demand.

Cost as a social category characterizing relations between people in the production and consumption of output has been considered primarily from the standpoint of its quantitative determination and from the standpoint of socially necessary costs for production. With this kind of approach the sphere of consumption is lost from sight. The idea that prime cost forms the foundation in determining socially necessary labor input has been extensively disseminated. Attempts have been made to calculate the size of cost directly in units of labor. Of course, prime cost (average sector, normativ or other) is of enormous importance for practical price setting. But to confuse it with the category of socially necessary labor inputs means to fail to see the difference between the content and form of its manifestation. In our view, it is in this that we also see the roots of the cost approach in price setting.

Although the law of value has been verbally recognized, in pricing practice this proposition has often been abandoned. Essentially this has led to underestimation of the role of prices and money-exchange relationships and has set them against the plan and physical indicators.

The oversimplified view of price as a monetary form of value and its connection with cost and socially necessary expenditures has also been expressed by depicting price increases as a phenomenon that is not inherent in the processes of price setting and that only price reductions are natural since in this event the socially necessary labor inputs are reduced in connection with rising productivity. These ideas are at variance with reality. Over the last 30 years prices have risen in the country, particularly in agriculture and the extractive sectors. But any regular measure to increase prices for production and technical output, dictated by objective conditions, has been regarded as a temporary measure, after which the level should fall.

## The Dynamics of Costs.

Comprehensive and objective analysis of the need for particular measures in the field of price setting and of factors determining the dynamics of price levels led to results that frequently differed from earlier postulates on price reductions, and such conclusions were ignored. For decades the coal industry, for example, has been operating at a loss and although this problem has been repeatedly dealt with by increasing prices for coal the amounts of the increases were determined without taking into account the actual status of and prospects for cost dynamics, proceeding from the principle "make the increase as small as possible" so as not to produce price increases in other sectors. As a result, a year after the new prices were introduced the sector has again been operating at a loss.

Of course, in practical price setting loss prices are possible because of extraordinarily high costs. But how well is the need for this justified? With regard to the coal industry, continuing the losses in this sector and the considerable subsidies given to it is, in our opinion, unjustified. First, extracting more than 700 million tons of coal, which makes up a considerable part of the country's fuel resources and will continue to do so, cannot be abstracted from society's expenditures in terms of its extraction. Second, the price level for coal cannot be considered high because it is lower than world prices. Artificially maintaining a low price level for coal also leads to low prices for other energy resources--oil and gas--which predetermines prices for the entire fuel-and-energy and raw materials complex.

## Distortions in the Price System.

The low level of prices in the fuel and raw materials complex, which predetermines costs in other industrial sectors and in the national economy as a whole, is deforming the entire price system. The illusion is created that fuel and energy resources are cheap. Such ideas do not stimulate economy in their use.

Where this oversimplified view of price dynamics leads can also be shown in the example of the prevailing price for diesel fuel. It has not been revised for decades and is almost three times lower than the price for gasoline. It is not surprising that converting to diesel is advantageous even given the very low technical level of diesel engines and the corresponding means of transportation. Moreover, work to modernize and renew diesel engines has proved ineffective because the associated savings derived from fuel economies are not worth it. Why? At one particular time price for diesel fuel was not raised only because it was not wanted to create increased costs in agriculture and in transport.

Many such incongruities could be cited. Hence the large subsidies because of the divergence in prices for industrial articles and agricultural produce and the different dynamics for purchase prices and retail prices. The presence of "curved-line prices" inevitably gives rise to "curved-line rubles" when one and the same ruble acquires a different value relative to different goods and different spheres of production and circulation. This all causes shortages of

resources and material and financial imbalance in the national economy and leads to the emergence of "excess" unused rubles, the "drone" ruble, in circulation.

Distortions in the price system also distort demand, which is formed in isolation from the socially necessary expenditures to produce output. And this is a disproportion between production and consumption, seen particularly graphically in retail trade turnover and the relationship between supply and demand. Is it possible under these conditions to talk about the reliability of prices as a normativ for economic management? Of course not. Price distortions create a situation in which what is advantageous for the state becomes disadvantageous for the enterprise, and vice versa.

We see that restructuring the price system is an essential element in improving economic management. It should cover the entire system--wholesale prices in industry, prices in construction, transport rates, and purchase and retail prices. In terms of its complexity and scale this is an unprecedented task that must be resolved in the interests of strengthening the economy.

Along with the restructuring of the price system it is necessary to improve the methodology for price setting and the practical way in which it is organized. The criticism of cost methods in price setting is quite justified. Of course, these have still not been overcome even now. However, we cannot agree with the position taken by some economists who see the essential nature of the issue is resolving what determines what--cost the price or price the cost? In the former case a cost principle is supposed to operate in price setting, while in the latter an anticost principle takes over. In our opinion this view is deeply metaphysical. Price cannot be divorced from cost. Price and expenditure make up a dialectical unity in which the basis for the price is the socially necessary expenditure formed under the influence of production and consumption.

Cost price setting is seen, first, in a one-sided orientation on production costs and second, in the interest in a high price for better results when the "gross" approach to their measurement predominates. It is naive to think that it is possible to create the kind of system that would insure the "overall pursuit" of low prices. In any case, we cannot expect this from producer or seller if, of course, we accept seriously the functioning of money-exchange relationships and on their basis, the principles of material interest.

It is a question of setting up the kind of mechanism that, first, would restrain the desire to increase prices. Second, it would reveal opportunities for reducing production costs and eliminating the fear that this would lead automatically to a lower price level and deterioration of enterprises' economic position. In other words, the price level should be determined not by "inflating" production costs but from the final result from the production of output and its consumer qualities and efficiency in use.

Taking into Account the Consumption Sphere.

The creation of an anticost system for price setting moves along the path primarily of taking more fully into account the quality and consumer

attributes of output and the degree of balance between production and consumption and supply and demand. In this connection, in price setting for new kinds of output the role of limit prices should be primarily strengthened. Limit price is the price for new output acceptable to the consumer, and it creates economic interest in his acquiring the output. The contract principle for establishing limit prices would insure the greatest degree of objectivity in price determination. The limit price fixes the limits of costs involved for designers and producers of new output. It is important that this price ultimately also become the wholesale price. In this case conditions are created for reducing the cost of producing new output both at the design stage and at the production stage. It is particularly important to create conditions for reducing costs during the design process because, as practice has shown, most of the reserves for reductions are to be found "on the designer's desk."

As a rule limit prices are significantly lowered in order to prove the great efficiency of the equipment or new enterprise being designed. Thus, the limit price for the KamAZ vehicle was reduced in the design e application of almost 1.5 compared with actual costs and price. The mistake in setting this price created the well-known difficulties when setting the wholesale price for the new vehicle and fueled the talk that the KamAZ project was supposedly inefficient, even though this is undoubtedly incorrect. From both the technical and economic standpoints the new truck is a major advance in Soviet motor vehicle manufacture.

A similar situation is now found with the new models of the ZIL and GAZ vehicles and the "Don 1500" combine. The limit price for the combine was made more exact at the various stages and was set for industry at R16,000 and for agriculture at about R12,000. It turned out that the price level for industry was unrealistic and it is now set at R32,000, which reflects real costs more fully. Combines with the same features cost from R45,000 to R60,000 in the world market.

Why did this kind of miscalculation become possible? In our view the reason was to be found in the comparison methods. The new combine is designed for large farms with intensive technology and yields of 30 or more quintals per hectare. Only in this case and on condition that harvesting times are reduced can it produce a high economic effect. But it was compared with the "Niva" combine that is used everywhere. Of course, if the basis of the calculation is the average conditions for operation of the entire "Niva" inventory then the "Don 1500" combine will be inefficient by comparison.

These facts indicate that the efficiency of new equipment depends not only on price but also the conditions in which it is operated. It might be said the new equipment requires a revolution in technological processes and the organization of production; then it will be very efficient. If robot technology is used, say, for only one shift, then costs will not be reduced.

When talking about the high cost of modern new equipment we wish in no way to justify unjustified costs in its production or dismiss the problem of lowering prime costs and price. Resolution of this problem is largely, and sometimes mainly determined by how equipment is used and how much advanced equipment is



introduced. At enterprises with advanced equipment, amortization costs and expenditures to service the equipment amount to 50 percent or more. Unfortunately, among the enterprises operating at a loss there are many new production capacities that stand idle and are only used half the time.

And finally, the role of the consumer in price setting and the problem of contract prices. Recently this kind of price has been extensively used, first and foremost in sectors such as light industry and the agro-industrial complex. But practice does make it possible to speak of the active use of contract prices on which calculations can be made.

Thus, the proportion of contract prices established for light industry enterprises and trade organizations is less than 2 percent of the total. Attempts by the USSR State Committee on Prices to pass on to ministries and enterprises confirmations of wholesale prices for individual kinds of output have not met with any significant support. This is probably because of the great inertia of the old ways. Of course it is easier to live with prices set for the enterprise; there is less responsibility and, of course, there is always someone to criticize.

Production and consumption always go together; each producer is also a consumer. Therefore, the position of the consumer can be strengthened on the basis of improvement in the entire economic mechanism, improved finances, and the elimination of resource shortages. The reason for minimizing the role of consumption is that the evaluation of production results is not in line with its actual efficiency. For a long time a unique re-evaluation of final results in production has been underway. Bringing the proper order here and switching from distribution principles in the supply of material resources to their sale in accordance with assets used will also enhance the role of the consumer. Under these conditions the question of contract prices can also be resolved in a different way.

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## SELF-SUPPORT PRINCIPLE IN RSFSR EXPERIMENTS EXAMINED

Moscow SELSKOYE KHOZYAYSTVO ROSSII in Russian No 1, Jan 87 pp 13-15

[Article by M. Kazakov, chief of the Financial Administration of RSFSR Gosagroprom: "Self-Support [samookupayemost] Operations Today and Tomorrow"]

[Text] Ask anyone today to cite the most typical characteristics of the current status of economic and social development throughout the country and the most common reply, even from a model student, would be that of reorganization and acceleration. But be not too hasty in taking pleasure from this fact -- such a reply testifies merely to the fact that we have firmly mastered the new terminology. But do we thoroughly understand the essence of the processes defined by these terms? Last year's economic results do not provide any basis for drawing a simple or positive conclusion despite the fact that, according to preliminary estimates, a substantial improvement was observed in the rates for the economic development of the RSFSR's agro-industrial complex. On the whole, an interpretation of the positive results reveals a very diverse picture. There are still too many farms and economic executives who cannot conceive of their existence in the absence of subsidies from the state budget.

Meanwhile, in conformity with the requirements set forth in the well known decree of the CPSU Central Committee and the USSR Council of Ministers concerning further improvements in the economic mechanism for management within the country's agro-industrial complex, work is commencing in connection with converting kolkhozes, sovkhoses and other APK [agro-industrial complex] enterprises over to the principles of self-support and self-financing.

Understandably, a reorganization of this magnitude will in terms of time require more than one day and even more than one year. Moreover, a great deal will depend upon how intelligently, purposefully and thoroughly it is carried out during the initial and preparatory stage -- particularly the feasibility and efficiency of use of the tremendous resources which the state is allocating for this purpose.

The conversion over to the principles of self-support and self-financing requires the carrying out of a number of preparatory measures and the creation of certain prerequisites. This includes a strengthening of the logistical base for kolkhozes, sovkhoses and other enterprises, an increase in the

interest of collectives in the results of their labor and in the responsibility for them and the introduction into operations on an extensive scale of intraorganizational accounting, the collective contract, intensive technologies and other progressive forms for organizing production and labor.

Included among the financial conditions required for the successful conversion of the agro-industrial complex over to the principles of self-support and self-financing is the need for achieving a level of total profitability under which opportunities will be created for expanded reproduction using the internal resources of enterprises. Improvements in the price mechanism and in the system for financing and extending credit to APK enterprises will play a substantial role in this process.

As a result of an entire series of materials published in preceding issues of this journal, readers are aware of the fact that since January of last year an extensive and large-scale experiment has been underway in a number of krais and oblasts of the Russian Federation, during the course of which elements of the new economic mechanism are being worked out. Thus I will pause here to mention only several aspects considered to be of special importance and interest in light of the subject under review.

It is recalled that in conformity with the conditions of the experiment, funds which earlier were shown as budgetary appropriations have now been included in the total amount of mark-ups for adding on to the procurement prices. This was done for the purpose of ensuring that all participants in the experiment had the profitability level required for expanded reproduction and roughly the same starting conditions. The creation of centralized reserve funds within the framework of rayon agro-industrial associations and territorial agro-industrial committees participating in the experiment constitutes a substantial addition to the above. Resources from these funds are intended to be used for furnishing assistance to those farms which are still incapable of achieving expanded reproduction even when the experimental mark-ups are taken into account. This measure is of special importance in connection with the conversion over to self-support operations not only of individual farms but also larger formations, such as RAPO's for example.

Despite the fact that the final results of the past economic year have not been summarized, preliminary estimates make it possible to draw certain conclusions.

One important conclusion holds that at those farms where a sufficiently high level of total profitability (25 percent or more) prevailed prior to the commencement of the experiment and where reimbursement for the expenditures for expanded reproduction from internal funds was ensured from the very beginning, the conversion over to self-support operations raised noticeably the responsibility of collectives for the final national economic result and for the thrifty and efficient use of available resources.

Notable improvements are being observed even on those farms where the starting level of profitability was comparatively low. Thus, at the economically weak Kolkhoz imeni Kirov in Pritobolnyy Rayon in Kurgan Oblast, the introduction of intraorganizational accounting with the check form of control over

expenditures and the collective contract into operations in all subunits was the direct result of the farm's participation in the experiment. According to the results at the end of 9 months last year, the savings in direct expenditures alone amounted here to 12,000 rubles. Labor discipline was strengthened considerably: compared to previous years, the amount of absenteeism had declined by twofold. Livestock losses and spoilage in material values had declined from 84,000 rubles in 1985 to 12,000 rubles in 1986. A correct ratio between growth in labor productivity and payments for labor is now being maintained. Last year, gross output production per worker increased by 11 percent, with simultaneous growth in wages of 4 percent.

Analysis reveals that at the present time there are still many farms in the RSFSR which, in terms of their level of development, are fully prepared for operations based upon the principles of self-support and self-financing. Moreover, many of them for all practical purposes do not require mark-ups to the existing procurement prices. Over the past two years, the total profitability for agricultural production throughout Moscow Oblast as a whole exceeded 30 percent, Leningrad Oblast -- 29, Tula Oblast -- 28, Lipetsk and Gorkiy oblast -- 27 and in Kuybyshev Oblast -- 26 percent. This list could be continued.

But is the true level of profitability always taken into account when distributing mark-ups? For example, 382 of 443 farms in Gorkiy Oblast are included on the list of farms being allocated appropriations from the budget. At the same time, in accordance with the results for 1985, more than 180 of them, that is, 40 percent, had profitabilities in excess of 25 percent. In Vologda Oblast, 202 of 209 kolkhozes were included on a similar list and indeed in the case of one out of every two of these farms the profitability also exceeds 25 percent.

At the present time, of 12,000 kolkhozes in the Russian Federation, almost 11,000 are included on the list for budgetary financing. In other words, only 11,000 farms are making full use of the principle of self-support. Meanwhile, we have three times more economically strong farms which are capable of operating in the absence of budgetary subsidies. Roughly the same ratio applies to the sovkhozes.

By a special order handed down by RSFSR Gosagroprom, the territorial agro-industrial committees were assigned the task of thoroughly examining the list of farms financed by means of the state budget and to leave on this list only those which are truly in need of assistance. This measure is of exceptional importance in the interest of ensuring that a sharp increase takes place this year in the effectiveness of use of budgetary appropriations and that the process of preparing agricultural enterprises for work in keeping with the principles of self-support and self-financing is accelerated.

It is not an exaggeration to state that today these principles are being employed not only by individual farms but also by the agro-industrial complexes in a number of oblasts, krais and autonomous republics, such as, for example, Leningrad, Moscow and Lipetsk oblasts and Krasnodar Kray. Some require use of the measure called for by the conditions for the economic experiment -- the inclusion of budgetary funds in the total amount of mark-ups

for the procurement prices. It should be mentioned in passing that this measure was dictated in a sense by the need for eliminating the sluggish economic thinking of labor collectives and forcing them to earn their own resources which earlier they simply received. However, we already have such regions where practically all of the farms are capable of using their own resources for compensating for the expenditures for expanded reproduction.

This applies in particular to Leningrad and Moscow oblasts. Thus, according to computations by our specialists, the sovkhozes in Leningrad Oblast, following their conversion over to self-support and self-financing operations, will have net surplus funds on the order of from 50 to 100 million rubles. You will agree that this is a considerable amount. It can be used within the oblast for additional production expansion or it could be transferred over to the central reserve fund of RSFSR Gosagroprom.

The reserve fund problem warrants special mention. Experience has shown that the reserve fund accumulated during the economic experiment and the existence of such a fund and its amounts are influenced by the same condition which determines success or failure in the use of the principle of self-support. The example of one of the participants in the experiment -- Pritobolnyy RAPO in Kurgan Oblast -- is rather instructive in this regard.

Here the overall volume of experimental mark-ups, taking into account the inclusion in them of budgetary appropriations, amounted to 9.1 million rubles. According to computations, this ensured an average rayon profitability level of approximately 21 percent for 1986. Only three out of 20 farms had a planned profitability in excess of 30 percent, four -- from 20 to 30 percent, and among the remaining farms the profitability level fluctuated from 11 to 20 percent. Practically all of the payments for Gosbank loans issued to kolkhozes and sovkhozes in the rayon, the repayment of which was called for during the current five-year plan, were deferred. However, under such conditions a majority of the farms were unable to ensure expanded reproduction in the absence of bank credits and extremely impressive credits at that. This became clear when developing the production-financial plans for last year.

Thus the Kolkhoz imeni 25th CPSU Congress, with a planned profitability of 11 percent and a planned profit of 173,000 rubles, was forced to call for long-term credits on the order of 572,000 rubles. The Kolkhoz imeni Kravchenko obtained 504,000 rubles worth of credits for its plan against a planned profit of 212,000 rubles. The Zarya Kolkhoz planned 236,000 rubles worth of credits. True, its total amount of profit was somewhat more impressive -- 322,000 rubles worth. In all, the rayon's farms, for the most part unprofitable operations, obtained more than two and one half million rubles worth of long-term loans during last year alone.

True, the schedules for repayment extend beyond the limits for the present five-year plan. But this signifies merely that after 1990 new economic difficulties will be added to the current ones.

For increasing their working capital, the rayon's farms were able to allocate only 341,000 rubles against a true requirement for this purpose of not less than 2 million rubles. The kolkhozes Pobeda, Zvezda, imeni XXVI Syezda KPSS

and Trud planned to cover the entire increase in their working capital by means of additional Gosbank loans.

Extremely unfavorable weather conditions during the crop harvesting period, similar to neglect in the organization of production operations, produced a situation in which the average rayon profitability level planned for last year was not achieved. Instead of 21, it amounted to only 11 percent and three farms ended the year with losses.

Computations reveal that even if all of the planned tasks for 1987-1990 are carried out, a maximum reduction is realized in production costs and output quality is improved, nine farms in Pritobolnyy Rayon -- almost one half -- will be unprepared for operations on a self-support basis at the beginning of the next five-year plan.

The situation could be considerably more favorable if the rayon had a sufficiently strong centralized reserve fund. However, the farms were only able to plan for 500,000 rubles to be added to this fund and the actual amount withheld for this purpose was even less.

Today many of the rayon's farms and even the RAPO's taken as a whole are confronted by an equally difficult problem: to slow down development, to ensure that expenditures conform to income or to reject the principles of self-support and self-financing and return to the old method. The first is fraught with serious difficulties and not too remote a future. The second must enter the area of traditions rather soon, since the principle of complete self-support provides the foundation for all future development of the agroprom. Is there a third? I believe there is. And this third factor must motivate the workers attached to the Kurgan APK towards analyzing the status of affairs in the oblast in a comprehensive and thorough manner and finding additional resources for expanded reproduction.

The experience of the Pritobolnyy RAPO in no way casts doubt upon the feasibility of effectiveness of the new managerial methods. It merely underscores the exceptional importance being attached to preparing for and giving careful thought to each step taken.

Since we have in mind here the conversion of entire rayons and even oblasts, krays, autonomous republics and, in the final analysis, the country's entire APK over to the principles of self-support and self-financing, we must not overlook the fact that within the framework of a rayon, and particularly an oblast or kray, the level of economic development for a farm is by no means the same. However, the starting conditions must be roughly equal, otherwise a backward farm would surely fall even farther behind and the total amount of resources required for correcting its economic "health" would increase accordingly. Thus centralized reserve funds must be created not only for compensating for losses caused by natural calamities and other factors which are objective in nature, but also for accelerating the equalization of farm potentials.

A word or two concerning the distribution of budgetary funds. According to the conditions for the experiment, all budgetary appropriations are included

in the procurement price mark-ups. An exception would be investments of a special purpose nature -- for the construction of large installations the estimated cost of which would be in excess of 4 million rubles or for the carrying out of land reclamation work, liming, gypsuming and other measures for improving soil fertility.

However, experience reveals that in the case of a mass conversion of entire rayons and oblasts over to the principle of self-support, situations often arise in which an individual farm is unable to cover vitally important expenditures which require large one-time investments.

Thus it is believed that a portion of the budgetary funds being allocated for these and other purposes should be concentrated within the framework established for the centralized funds of territorial agroproms.

It is considered advisable this year to commence the gradual (by stages) conversion of farms over to the more improved and more responsive to cost accounting principles method of budgetary financing, based upon the normative method. It can be stated immediately that the proposed changes do not require any legislative sanctions "from above" -- they are basically called for in the new economic mechanism.

In particular, budgetary appropriations for improving the economies of backward and economically weak farms could be allocated in the form of share participation. For example, a definite proportion of the budgetary funds for overall expenditures for expanding production operations could be established for them for any planned period. In this instance, importance would be attached not so much to the actual amount of the budgetary funds (ruble for ruble, more or less), but rather to the circumstance that is obvious to any economic executive which holds that the volume of state investments in the development of an enterprise headed by him will be greater than the amount invested by the enterprise itself. This is one of the variants.

For example, a firm amount of annual budgetary appropriations can be established for the five-year plan for farms which operate under especially complicated economic conditions. This is a more harsh form of financing. But with it a farm leader will know in advance precisely which portion of his expenditures for reproduction will be covered by the fund for the territorial APK and how much he will earn together with his collective.

In the carrying out of special purpose measures and programs, budgetary appropriations can be allocated in the form of share participation. This method can stimulate an acceleration in the construction of housing and socio-cultural installations and also leading rates of development of backward sectors and branches of production. For example, budgetary funds can be invested on a share basis for the purpose of strengthening the feed base for animal husbandry -- erecting storehouses, feed preparation shops and other installations.

In all of the cases mentioned, we are abandoning the method of financing based upon a shortage of funds and beyond any doubt this represents a forward step compared to the generally accepted method.

The rights and powers extended to the territorial agro-industrial committees enable them, by agreement with the local financial organs and offices of Gosbank, to introduce the mentioned system for allocating budgetary funds to farms on an independent basis. But in the process, considerable importance is attached to establishing strict control in the interest of ensuring that the new rules are in no way violated.

Strong financial allotments and the strict establishment of norms for budgetary funds allocated, depending upon the investment volumes for a farm's internal resources and the rates of growth in these volumes, will definitely serve as a catalyst with regard to the economic activity of a collective.

And it can be stated directly that such activity constitutes an important condition for the successful conversion over to the principles of self-support and self-financing. As already stated, such a conversion is simply impossible in the absence of serious preparatory work. A strengthening of the principles involved and an increase in the effectiveness of cost accounting operations constitute a considerable portion of this work. This also applies to the introduction in all areas of the check form for controlling expenditures and for radically improving intraorganizational planning. In short, under present conditions each worker must be an economist and a master of production and not just an individual who carries out a technological function.

Unfortunately, tasks for output yield and expenditure limits are still either not being established for many cost accounting subunits of kolkhozes, sovkhoses or other APK enterprises or they are formal in nature. Nor do they always conform to the indicators set forth in the summary, all-farm or production-financial plans. The check form for controlling expenditures on many farms is not being employed in all areas but only by certain subunits and this is decreasing sharply its effectiveness. Quite often the operational results of cost accounting subunits are being summarized in an irregular manner. Moreover, the main principle of cost accounting -- the principle of material interest -- is being violated. More than a few situations could be cited in which bonuses were not paid out for savings realized in direct expenditures. Under such conditions, an actual and not just a formal conversion over to the principle of self-support becomes extremely problematical in nature.

At the same time, we know of many positive examples. For example, let us take Lipetsk Oblast where intraorganizational accounting involving use of the check form for controlling expenditures and the collective contract has been used most extensively, as borne out by the fine handling of economic operations. The economic successes of kolkhozes and sovkhoses in this oblast have already been discussed above.

Many farms in Stavropol Kray achieved positive results after converting over to self-support operations. Against a profit plan for the kray's kolkhozes and sovkhoses calling for 442 million rubles, 449 million rubles were actually obtained, or 223 million more rubles than the average annual profit for the 1983-1985 period. The financial status of a majority of the farms was increased considerably. The monetary funds remaining in their accounts last



year amounted to 185 million rubles, whereas in 1985 only 74 million rubles remained. During this period, the indebtedness with regard to short-term USSR Gosbank loans declined from 611 million rubles to 546 million. As you can see, practical use of the principle of self-support is already producing fully perceptible results.

It is on this optimistic note that I would like to conclude this discussion of self-support operations. We will return to it again at a later time in view of the fact that as yet only the initial steps have been taken in this direction. And in order to ensure a high tempo and accurate course, we necessarily require constant and impartial evaluations of the work already carried out.

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MINISTER: ACCELERATION SOUGHT IN INDUSTRY

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[Article by V. G. Chirskov, USSR minister of Construction of Petroleum and Gas Industry Enterprises: "The Means of Acceleration"]

[Text] INTO THE CREDIT SIDE OF THE FIVE-YEAR PLAN

It seems like it was only yesterday that we were discussing the plans for the 12th Five-Year Plan period, talking about the upcoming reorganization and outlining ways to accelerate all our activities. And a year of intense work has already passed. The results of this year's work, which were noted at the 6th Session of the 11th Convocation of the USSR Supreme Soviet, give a good idea of how the 27th CPSU Congress' course for intensifying the national economy is in fact being realized.

What were the first year's results achieved by the oil and gas industry construction workers who are establishing the production base for the fuel and energy complex industries?

I recall the basic indicators the sector was to have reached by the end of the 12th Five-Year Plan period. The volume for construction and installation work was to have increased by 33 percent over 5 years, with labor productivity raised by 24 percent in pipeline and surface construction. And the plan, as is well known, was drawn up so that we had little time to swing into action: the five-year plan's growth rates were to be achieved in the first year, i.e., we were supposed to increase the volume of construction and installation work by 8 percent in the start-up year of the five-year plan period. Did we meet this target?

The sector met the year's targets for contract construction and installation work volumes ahead of time.

During the 12th Five-Year Plan period, almost the entire increase in oil and gas recovery levels will come from the Tyumen fields. That is why, before anything else, the concentration of our forces and assets in this region needs to be mentioned as one of the positive results of our work in 1986. In Western Siberia, we overfulfilled our contracted targets both at Minnefteprom and Mingazprom projects.

For example, the red-letter day was 6 September 1986. On this day, after an extended lag, Glavtyumenneftegaz [Main Tyumen Petroleum and Gas Industry Production Administration] reached the plan indicator for daily oil recovery. And the subdivisions of Glavtyumenneftegazstroy [Main Administration for the Construction of Petroleum and Gas Industry Enterprises, Tyumen Oblast], Glavtyumentruboprovodstroy [Main Administration for Pipeline Construction, Tyumen Oblast], Sibkomplektmontazh [Siberian Association for the Installation of Equipment in Complete Sets] deserve a great deal of credit for this, as do all the sector's main administrations which were brought in to work in Western Siberia. Our collectives, by skilfully maneuvering their manpower and material resources and working shoulder to shoulder with the project planners as well as with the client, were able to construct additional oil recovery capacities ahead of schedule. Sixteen of the new fields which, in accordance with the plan, were to be constructed in a year, were turned over for operation in the first six months, and an additional 7 new fields were brought in toward the plan. Fuel purification installations, pressure normalizing stations, group pumping stations for pumping oil and water, tank farms, over 6,000 km of field pipelines and 2,000 km of power transmission lines have been built out in the oil fields.

A number of critical state targets have also been met successfully by those state employees who are developing the Arctic gas fields. They turned the Yamburg-Yelets-I gas pipeline over for operation ahead of schedule, and are laying the Yamburg-Yelets-II pipeline ahead of schedule as well.

Last year the sector celebrated a labor victory by putting the Yamburg Gas Condensate Field into production ahead of schedule. The plans called for this field's surface facilities to be turned over by 1987, but fuel from this field began flowing into the country's gas supply system as early as last September. This helped to make up for the shortage in fuel and energy resources much sooner. This shortage was a result of the accident at the Chernobyl AES. The Yamburg success stemmed from the use of superblocs in building the first comprehensive gas treatment plant. The sector's gamble in developing self contained modular construction has been completely vindicated. This advanced method turned out to be a uniquely reliable solution, and made it possible to construct a large-scale field facility in challenging natural and climatic conditions in the Arctic in the shortest possible time. Thanks to the erection of field facilities in modular layouts, a total of 16 comprehensive gas treatment plants were put into operation in 1986, with an aggregate capacity of 91 billion cubic m of raw materials per year. This was 18 billion cubic m more than called for in the target.

In 1986, about 22,000 km of pipeline was laid, over 9,000 of which was trunk pipeline. We built 50 compressor plants and pumping stations and laid 8,000 km of cable and microwave relay communications links. The sector met its targets for constructing gas pipeline branches to power stations which have been converted to fuel gas operation. Additional capacities were set up for refining associated petroleum gas.

In addition to oil and gas industry facilities, our subdivisions constructed industrial plants for other sectors of the national economy. They include

plants for manufacturing geophysical research instruments, spare parts, submersible electric pumps and chemical reagents, and even a stocking and sock mill. The sector's employees have participated directly in eliminating the aftereffects of the Chernobyl AES accident.

This ministry's organizations have performed challenging tasks during the first year of the five-year plan period in making housing and socially-related facilities available. The sector's industrial capacities have met their year's targets in full. All in all, it can be said that the sector's labor collectives finished the year with success.

#### MOST IMPORTANT: THE TURNKEY CONTRACT

But is it enough that we overfulfilled the plan for volumes of construction and installation work while at the same time, and ahead of schedule, we turned over the most crucial national economic projects for operation? No, this amounts to very little. Everyone knows that the criteria for evaluating the construction organizations' work has changed from the ground up. The indicator which typifies the making of production capacities, buildings, apartment houses and other socially-related facilities ready for use has been put in the center of our attention. At present, this is the very first indicator we use when judging how well we have fulfilled the yearly plan, and the one our clients use when assessing the results of socialist competition. Just how many of the projects on the project list plan have we made ready for use?

You could say that not all the projects on the national economy's project list plan have been put into operation. But now is not the time to resort to such streamlined formulations. Here's the way things stand: of the 287 projects on the national economic plan, 45 have not been completed. Those most in arrears are subdivisions of Glavtruboprovodstroy, with 11 projects uncompleted, Glavvostoktruboprovodstroy--behind on 6 projects, Glavyuzhtruboprovodstroy with 4 projects uncompleted and Glavukrneftegazstroy [Main Ukrainian Administration for the Construction of Petroleum and Gas Industry Enterprises], with 6 unfinished projects.

In fairness, it must be admitted that some of our subdivisions have been the victims of "extenuating circumstances". Some of their projects were unfinished because of their suppliers: late equipment delivery in one case and a design change elsewhere. Nevertheless, the big picture of the plan for putting projects into operation shows that a great many trusts care little about turning projects over on time. Far from all the collectives have lost their fascination with volume, trying, as they always have, to fulfill the plan in monetary terms, and turn over on time only those projects which are under particular scrutiny.

Following the issuing of the CPSU Central Committee and USSR Council of Ministers decree on measures to improve the economic mechanism in construction, the turnkey contract became our most important document. Every project we undertake needs to be completed on schedule and with high quality. And most important, our projects need to be carried out with the economic indicators which allow us to pay back all the outlays, earn enough profits to

settle accounts with the government and form production development funds and economic incentive funds. If there is still a project which exceeds the deadline, then subject to a payment of 3-percent of the value of the construction and installation jobs for disrupting the planned deadlines for turning over projects, the sector is not credited with up to half of the material incentive fund. This is why it is better for us to think in terms of 100-percent fulfillment of the plan for putting all our production capacities into operation and in this connection, to increase the material incentive fund by 10 percent.

In large part, a contract's quality is predetermined by its terms being met. This is why when the 1987 plan was being drawn up, particular emphasis was placed on making sure that it included no projects which had not been simultaneously provided with funds for equipment and with technical documentation.

For the first time, a plan has been developed which takes into consideration the established norms for construction time not only for conversion projects, but for newly begun projects as well. So we see that the successful implementation of a program directly depends on the degree to which our subdivisions can concentrate their manpower and material resources on making planned projects operational.

#### PLAN HIGHLIGHTS

The overall volume of contract construction and installation jobs for 1987 amounts to R7.2 billion. Instead of the 8,000 km called for in last year's plans, we need to put over 23,000 km of pipeline into operation, 11,000 of which are main trunk lines for transporting gas and oil products. The Yamburg Yelets II gas pipeline needs to be completed as soon as possible. On the Progress Integrated Pipeline Right-of-Way, subdivisions of Glavtruboprovodstroy, Glavsibtruboprovodstroy [Main Siberian Administration for Pipeline Construction], Glavvostoktruboprovodstroy and Soyuzpodvodtruboprovodstroy [All-Union Trust for Pipeline Construction], working together with construction workers from the GDR, have created enough of a backlog for the Yamburg-Yelets leg of the transcontinental gas pipeline to be completed during the second quarter of 1987. And the sector has taken responsibility for putting the gas pipeline from the Yamburg Field to the Ordinskiy Compressor Station into operation by the same time. The pipeline leg from Yelets to the Western border needs to be laid in 1987 by Glavukrнеftegazstroy and Glavyuzhtruboprovodstroy forces as well as construction organizations from the CSSR and the Polish People's Republic, so gas can be sent through it as soon as the first quarter of 1988.

We also plan to start laying the Yamburg-Tula-I and the Yamburg-Tula-II pipelines as well as the Northern Tyumen Oblast Regions-Surgut-Omsk pipeline this year.

Of the other pipeline construction projects which, although smaller, are extremely important to the national economy, the following stand out: those pipelines branching off the main line within the UkSSR and the Moldavian ASSR: the Makat-Northern Caucasus line, the Okha--Konsomolsk-na-Amur line and the

Gazli-Chimkent line, the Kurgan-Tyumen and Chimkent-Tashkent oil products pipelines, the Sovetabad-Shatlyk-Khiva gas pipeline extension, the Krasnoleninsk-Shaim-Konda oil pipeline and the Polotsk-Minsk oil products pipeline.

As is well known, oil and gas recovery is becoming more and more labor intensive. This can be explained first by the reduced per-well yield from our older fields, and second by the fact that those mineral resources which have been deposited in inaccessible regions and at great depth have been made part of our economic circulation. The upshot is that we have a situation in the oil and gas industry where it is not the throughput capacity of our gas transport systems which is holding back the delivery of fuel to the central oblasts, but our capacity to recover and refine the raw materials. This shows up as well in the way in which oil and gas construction is structured. If surface facilities predominated during the first year of the five-year plan period, then in 1987 this predominance was absolute. Surface facilities comprised 62 percent of total construction volumes. Plans call for the construction of more than 60 compressor plants and pumping stations on the main gas and oil products pipelines, 630,000 cubic m of oil storage tanks, and a vast quantity of cable lines and microwave relay communications links. In the oil fields, the number of installations connected with maintaining formation pressure and with gas-lift operation is sharply increasing.

The schedule for putting capacities into operation which are related to associated petroleum gas use is taking on the nature of a directive. This means that we must keep in sight the construction of the Noyabrskiy, Krasnoleninskiy and Gubkinskiy gas processing plants and field compressor stations, as well as the setting up of a system for transporting gas processing products.

We also need to mention one of the 1987 plan's special features which is now more important than ever: the increased share of the Western Siberian Oil and Gas Complex in the overall volume of construction. Here, we need to carry out contract jobs worth R4.3 billion, or 13.5 percent more than for 1986. We need to implement the entire program of constructing field facilities and putting 20 oil fields into operation during the first six months of this year. We still have to build 12 oil-treatment plants, 51 pressure-equalizing pumping stations and 63 group pumping stations, field tank farms with a capacity of 650,000 cubic m, two gas-lift compressor stations and more than 6,000 km of field pipelines and oil flow connecting lines in Western Siberia.

The sector's 1987 program for construction of housing and social, cultural and domestic services facilities is complex, but very important. Of the 2.3 million square m of living area which need to be built this year, 1.4 square m will be made available in the Tyumen Oblast. More schools, kindergartens, hospitals and polyclinics are to be brought into this region as well.

Despite the fact that this year's construction program is more than ever oriented on priority development of the Western Siberian Oil and Gas Complex, the construction of the Caspian Lowlands Fields has in no wise been relegated to the background. Work volumes in this region are to increase 1.8-fold.

Labor collectives employed by Glavneftegazpromstroy, Glavtruboprovodstroy, Glavyuzhtruboprovodstroy and Glavkazneftegazstroy [Main Kazakhstan Administration for the Construction of Oil and Gas Industry Enterprises] should continue to work on the facilities of the second phase of the Astrakhan Gas Condensate Field. Working with construction workers from Hungary and Czechoslovakia, we need to build the needed production bases and housing so that field facilities capable of recovering and treating 3 million t of raw petroleum products in the Tengizskiy Oil Field can be put into operation and available in 1988, and facilities for treating 11 billion cubic m of gas in the Karachaganak Gas Condensate Field will be ready in 1989. For 1987, we have to focus our efforts on the Astrakhan-Mangyshlak Aqueduct and on putting the Astakhan-Kulsary section into operation, and we still have to do the line work on the Zhanazhol-Kenkiyak-Oktyabrsk-Aktyubinsk gas pipeline.

Our contribution to the economies of regions where the sector's subdivisions are stationed is growing as well. The plan for 1987 calls for us to put capacities for producing whole-milk products, hosiery articles, refrigerators, cast-iron castings and bricks as well as vegetable and fruit storage into operation.

#### STRENGTHENING THE HOME FRONT

The shift towards surface construction, which is more labor-intensive, the increased amount of work being done in the inaccessible regions of Western Siberia, the start-up of active development of the Caspian fields and the social orientation of the plan all work together to create an additional burden on our home front, i.e., the sector's construction base. This is why the sharp increase in in-house construction work, which has been built into the plan, which guarantees that the five-year plan program will be implemented. To these ends, R1.5 billion in capital investments were allocated in 1987, an increase of 19.2 percent. Two-fold greater capital outlays will be used for the sector's construction industry projects than in 1986. These monies will be used to increase our capacities to produce ferroconcrete structures, items and parts for large-panel housing construction. In a year, we will be able to produce 257,000 more cubic m of precast ferroconcrete, and retooling and renovation will give us 105,000 cubic m more. We will be able to produce 50 more superblocs per year and 700 more rail-car dwellings.

Extensive funds have also been allocated for in-house construction of housing and personal and domestic services facilities. In 1986, 876,000 square m of living area was made available, with a 23 percent increase above this, or 1,080,000 square m planned for 1987, 693,000 square m of which will be in Western Siberia. Hence it might be well to add another 108,000 square m which have to be built as part of an additional quota. The number of seats in children's preschool institutions will increase by 6,600.

The acceleration of non-production-related construction rates is an expression of the sector's new social policy. It takes its form from the recently adopted program entitled "The Social Development of Minneftegazstroy Enterprise and Organization Collectives for 1986-1990". The program outlines

the problem of increasing the amount of available housing for the employees of this sector, so that by the year 2000, in accordance with the decisions of the 27th CPSU Congress, each family can live in its own apartment or house. This requirement can be met if, during this five-year plan period, as called for in the plan for in-house capital construction, no less than 5.8 million square m of housing is built. There is a very real possibility of our accomplishing this. There are also plans to review the structure of the housing now being built, i.e., to increase the share of dormitory facilities and housing for small families, to expand the scope of cooperative construction and erect housing complexes for young people. Meeting the targets of the social program is the duty of each labor collective and each of the sector's managers.

The 1987 plan's increased number of more labor intensive above-ground construction projects, the increase in the program for residential construction and the improvement of the program's structure are all backed up by corresponding growth in the construction materials industry. The manufacture of ferroconcrete structures is to be increased by 6.7 percent, primarily by producing more precast ferroconcrete for industrial projects, such as paving slabs, pilings and wall and roof panels. There is to be a 9.3 percent increase in the manufacture of large-panel housing construction and a 1,000-unit increase in rail-car dwelling manufacture.

However, these plans can only be made workable by a surge upward in the technical and organizational level of construction industry enterprises, particularly those building precast ferroconcrete and mobile homes. A great deal depends on how the employees of Glavneftegazpromstroyaterialov [Main Administration for Oil and Gas Industry Construction Materials], of the Soyuzneftegazstroykonstruktsiya [All-Union Association for Oil and Gas Construction Design] and the Experimental Ferroconcrete Design Bureau cope with the planned program for rebuilding and retooling construction industry plants. For example, the Serpukhov Building Construction Combine, after completing its planned technical conversions, has to increase its capacities 2-fold for manufacturing sets of quickly-erectable buildings, and to greatly improve the quality of these products. Glavzapsibzhilstroy [Main Western Siberian Administration for Housing Construction] and SibNIPIgazstroy [Siberian Scientific Research and Planning Institute of Gas Construction] are to develop new capacities for producing concrete chip slabs at the Vinzili House-Building Combine. By using this progressive and economic material instead of wood and metal, an enterprise can produce modules for more comfortable apartment houses and field cities. A portion of the output derived from intrasectorial cooperation will go to the Blokzhilkomplekt [Modular Housing Sets] Association's Bugulma Building Construction Combine.

The latest production methods should help to radically change the look of the methods for manufacturing pipeline connectors and installation assemblies at the Novosineglazovskiy Building Construction Combine, which was recently changed to the Trubodetal Production Association. Here, using developments from the Institute of Electric Welding imeni Ye. O. Paton, they are using the electron beam welding method to devise automated production of pipeline connectors in diameters exceeding 720 mm.



During the 12th Five-Year Plan period, the sector's production base must grow at rates which will allow it to lay a material and technical foundation for oil and gas industry construction in the next 10-15 years. Taking this into account, the recently adopted integrated program for developing the sector's machine-building activities for 1986-1990 and the period up to 2000 calls for acceleration in developing and introducing new machinery systems and for raising the technical and organizational level of our machine-building enterprises by rebuilding and replacing the equipment park and building new plants.

We need to use the accelerated rates of scientific and technical progress which exist in the sector's machine building endeavors to bring about a 3-fold increase in our capacities for manufacturing construction machinery and non standard equipment. But this is not an end in itself. The main thing is to improve the technical and economic indicators for the output of our plants, and first of all the quality of our machinery and equipment.

We set out in real earnest to implement this program in 1986. For example, we manufactured an experimental batch of ETR-307 all-purpose rotary excavators, for use in digging trenches 3.1 X 3.1 m in permanently frozen ground. This year we need to raise the technical level of our Tyumen swamp buggies, welding units and pipe carts. An increase of 6 percent in production of construction machines at our own plants in 1987 will provide the sector with 1,075 pipe carts, 170 pipe-layers, 100 excavators and the same number of swamp buggies.

The sector's construction machinery park is growing, with a concomitant increase in the power-worker ratio. And it is our job to achieve a state wherein replacement or replenishment of the equipment park immediately improves the economic indicators for the work done by the collectives. For this to happen, we need to introduce a two-shift work schedule, consolidate the repair base and improve our equipment servicing. Clearly, it is high time to improve the organization of the mechanization services as well. We need to set up mechanization administrations everywhere, whose job it will be to repair construction machinery. We also need a sectorial spare parts supply system.

#### GOODS AND SERVICES

There are products among those produced by the construction materials industry enterprises, the demand for which is far from being satisfied, even though the plans are being fulfilled. We are talking about marketable goods. Considering that our country is implementing a comprehensive program to develop its consumer goods and services industry, the part we play here can be considered as purely symbolic. Last year our sector's enterprises produced R10 million worth of goods, which is 1.4 percent of the overall industrial production volume. The primary cause of this situation lies not in the fact that there is nothing to manufacture and no raw materials to make things of, but because many of our enterprises' collectives have failed to reorient themselves psychologically, and have underestimated the importance of this social task. As emphasized at the 6th Session of the 11th Convocation of the USSR Supreme

Soviet, all associations and enterprises, regardless of their specialties, need to set themselves up to produce consumer goods and provide services.

This attitude towards the production of goods needs to be changed as a matter of principle. This is no third-class matter, as some people seem to think, but is fully as crucial as fulfilling the national economic plan.

In goods production for 1987, we need to produce a minimum of 3 percent of the overall volume of industrial output and spend only R20 million in so doing. In order for our goods to find purchasers, we need to expand their assortment, to sharply improve their quality, to initiate production of marketable items in those regions where they are in great demand, develop intrasectorial cooperation in goods production and to move these goods through our ORS [Workers' Supply Department] stores.

As for expanding the area of services, this is where we need to set ourselves a goal for volume of no less than R42 million per year. This works out to R80 per worker in the sector. Each trust and plant needs to organize sales of local construction materials, to build an improved backlog of new flats, on order from the populace, to repair existing apartments, set up subsidiary farms, provide transportation services on a paying basis, and vigorously develop other services for the populace.

The sector has had more success in developing subsidiary farms. We have outlined our limits for the agricultural production sector for the entire five-year plan period. In 1990 we intend to be producing 50 liters of milk and 15 kg of meat per worker. Thus far the plan for 1987 calls for 6.1 kg of meat and 8.7 liters of milk per worker. Success here will depend on the active participation of the collectives of all the main administrations and trusts in implementing the Food Program. Right now, an extremely contradictory picture is taking shape: in the northern areas, with their unfavorable climatic conditions, the subsidiary farms are doing better than in the South and Center, where the climate is favorable and tolerant.

#### SCIENCE BY CONTRACT IN INDUSTRY

Thus, in 1987 we need to advance oil and gas industry construction in all directions and at a more rapid pace. But to do so we need to improve the mechanism for acceleration while simultaneously carrying out our ongoing business matters. The first thing we need to do is use our industrial scientific potential to solve our urgent production problems and to collaborate more effectively with the scientific subdivisions in related sectors and the USSR Academy of Sciences within the framework of a national program of scientific and technical efforts.

The sector's scientific forces have been considerably strengthened of late, having been concentrated in those areas of production where further growth would be impossible without making use of scientific and technical achievements. At present, there are 15 in-house scientific research, planning and production-designing organizations working on oil and gas industry construction projects. Five of them made their appearance only quite recently. NIPIlnzhneftegazstroy [Scientific Research and Technological Design

Institute for Engineering Preparation for Construction of Oil and Gas Industry Projects], which was formed within the Glavtyumenneftegazstroy system, has been working on procedures for carrying out construction operations in permafrost and swampy areas. Co-workers from NIPIKBS [Scientific Research and Drawing and Designing Institute for Self-Contained Block Construction] are drawing up documentation for a projects which could be constructed in modular fashion, as well as for superblocks weighing up to 1000 tons.

In 1986, 1.5-fold more enlarged units for connecting compressor plants and pumping stations and gas treatment plants were brought into our construction areas than in 1985. This in itself is a gratifying fact. But output quality has not yet attained a high level. The Novosineglazovskiy Building Construction Combine recently acquired its own design organization and has been promoted to the status of a production association. And it is the job of science to help the business of construction on the needed level. Coworkers of the Trubodetal SKB [Special Design Bureau] should work closely with the production workers to develop automated production lines for manufacturing enlarged pipe sections. The task is this: to expand the program to 43,000 t by the end of the five-year plan period and completely meet the sector's demand for this type of product.

It should be understood that the effect derived from uniting science and production will also show up in improved welding methods. At any rate, with the advent of the Svarkaneftegazstroy Scientific Production Association, which is based on the Kiev Experimental Machinery Plant and the Special Design Bureau for Welding Equipment, the time spent in drawing up technical documentation when preparing to manufacture products has been sharply reduced, and the unfinished design work in all previously manufactured forms of welding equipment has been brought to light.

Having precisely defined the sphere of activity and having specified the tasks for each scientific research institute and design bureau, we need to take the following steps: stop scattering our forces and duplicating research and developments, start saving our time and assets for realizing innovations and to make our sectorial scientists more responsible for the level at which our construction procedures are carried out. We can do this by applying the systemic principle of growth in scientific and technical progress. This is why we must stop making those uncoordinated improvements upon which the plan for introducing new equipment was formerly based. Instead, we should devise a mechanism for controlling those processes by which innovations are created and realized, which in turn would coordinate the results of the changes made in technology, production procedures and the economic mechanism with the indicators of the plan for the sector's economic and social development. To this end, a special statute has been approved which defines the basic principles for developing a system for controlling scientific and technical progress and for improving the planning, organization and supervision over the working up and realizing of scientific and technical developments, and appropriate technical directives have been prepared. The level of organization needed to solve this circle of problems will be achieved by using computers to introduce automated subsystems to control scientific and technical progress.

However, we must not forget that technical creativity is a field of activity wherein the process of realizing ideas can be too regimented, thus stifling any interest in innovations. This is why, first, power from the Center is extended only for those developments which are part of the national and sectorial scientific and technical programs, and on the other hand the enterprises and organizations have been granted complete autonomy in choosing designs which ensure that the production plans will be fulfilled. They will use their own earned assets and the residual assets in their scientific and technical development funds to finance work on introducing new technology, and will create conditions which will stimulate technical creativity.

Of course, in conditions such as these, production workers will begin to display a more discriminating attitude to scientists' suggestions. They will hardly pay for a development which has only been introduced on paper. Collectives give scientific organizations only a portion of the money they earn from realizing the organization's ideas. Then on what assets are scientific research institutes and design bureaus to exist if they are not coming up with progressive production methods for construction organizations and construction industry enterprises? Beginning in 1987, it was decided to change scientific subdivisions over to cost accounting [khozraschet]. Working with production collectives through supply authorizations, they will use their own assets to pay wages to their co-workers, purchase instruments and equipment and fulfill social development plans.

The development and experimental approval of the procedures used to develop the Yamal Peninsula's gas condensate fields and to build the Yamal-West Gas Pipeline will comprise a serious test of the inventiveness of our scientific research, planning, and technical design organizations. A decision made by the scientific and technical councils of Minneftegazstroy and Mingazprom obliges VNIIPKtekhorgneftegazstroy [All-Union Scientific Research and Planning Design Institute for the Technical Organization of Oil and Gas Construction], VNIIST [All-Union Scientific Research Institute for Pipeline Construction], SibNIPigazstroy, NIPIKBS, VNIIPigidrotruboprovod [possibly All-Union Scientific Research and Planning Institute for Hydraulic Pipelines] to test a number of innovations this year on experimental pipeline sections and to make project planning recommendations. Considering the amount of work to be done, the completion deadlines and the region's extremely challenging conditions, the development of the Yamal Peninsula presents a unique problem for the oil and gas industry's construction workers. And the successful resolution of this problem will depend in no small measure on how our scientists play the part of vectors of scientific and technical progress.

#### TO LEARN TO COUNT

The measures for reorganizing planning, for organizing labor and for administration also need scientific support. The depth and multifaceted nature of the changes which have been made in these areas were predetermined by recent party and government decrees on improving efficiency in capital construction. In order for the decrees to be carried out in the sector, a draft plan for "Reorganization of Minneftegazstroy's Economic Mechanism in the 12th Five-Year Plan Period", a goal-oriented integrated scientific and

technical program which gives construction organizations a concrete plan of operations in all aspects of their industrial activities. All the program's targets have been coordinated by stage, deadline and executor.

Realization of this program should result in an adjusted economic mechanism, on which basis an OASU [Automated System of Sector Administration] could function. The development of planning and supply subsystems will be the above system's first start-up complex.

Why is it so necessary to use scientific principles in planning? It is unfortunate, but we presently have no effective means which would aid us in making an objective assessment of the quality of the consolidated plan which is formed on different administrative levels, much less of its sections. It is difficult, because of a lack of information, to come by a clear idea of how the meeting of targets will effect such economic indicators, which are so vitally important to the collectives, as profit, wages, labor productivity and economic incentive funds. And under cost accounting, especially where there is self-financing and a self-supporting production [samookupayemost], the labor collective, prior to finding its place in the planned workload, must know how the meeting of its targets will be reflected in the final results of its work. Those who approve the plan for the collective must also be clear on this point. When enterprises and organizations are responsible for not operating at a loss in their economic activity, the ministry staff and the main administration staff are made much more responsible for the administrative decisions they have taken.

It is perfectly obvious that when they fulfill their contractual obligations, the collectives' economic prosperity is guaranteed whenever the optimal workload of the construction organizations is based on an accurate estimate of their production capacities, when the particular subdivision's specialty is taken into account and a rational operational structure is chosen. And when the volume of construction and installation jobs is broken down into production stages and complexes, normative construction deadlines are observed and the working front is shortened. This mass of information cannot be processed without a computer. Thus the problem: at exactly the time when we are able to achieve necessary plan quality and multivariance of planning decisions and to reduce the time needed to draft them, we will have to turn to GlavPEU [Main Economic Planning Administration], the GIVTs [Main Information and Computing Center] and VNIIPKtekhorgneftegazstroy for help. However the last-named institute, for example, in its role as the leading organization for devising methods for developing subsystems for planning and supply for the Automated System of Sector Administration is not only being developed slowly itself, but has failed to organize efficient coordination of the activities of the ANKh [National Economic Archives] of the USSR Council of Ministers, the LiSSR Ministroy [Ministry of Construction] Construction Engineering Institute] et al. The Main Information and Computing Center is still expending its primary strengths on collecting and processing current information on the fulfillment of plan targets, all of which is calculated by the traditional method, when what it really needs to do is organize a data bank so that, with the help of a computer, planning and administrative problems can be solved immediately while it simultaneously develops an automated control system, thus reducing the amount of work needed to make the calculations and improve the

quality of the plans. Automating administrative employees' workplaces eliminates the mountains of enquiries, replies and letters which now fill their offices. They will have time for analytical work, business contacts with their co-workers in the central apparatus, and the effectiveness of their work can be improved with the smallest number of people.

However, no matter how much responsibility the upper-circle administrators bear for their decisions, or what sort of equipment they have to lighten their workload, there will always be flaws in planning quality and in the execution of assignments if the central apparatus fails to turn over many of its own functions to the provinces. Whenever collectives fail to fulfill the plan for introducing capacities and thus not only lose a portion of their profits, but are not even repaid for their outlays for non-itemized projects, they have a special need for rights in planning, financing, material and technical supply and effective production leadership. Having been granted these rights, they will take care to initiate only such projects as can be completed within the normative deadlines.

The transfer of certain rights "downward" means that the central staff will unavoidably lose some of its authority. And this would allow reductions in its ranks. But in order to determine which functions are to be kept by the ministry, the main territorial and specialized administrations and the All Union construction and installation administrations, and which functions are to be given over to the trusts and administrations, we need to come to a precise definition of what every co-worker is doing, the extent of his workload and his responsibilities. And on the basis of this stock-taking of accomplishable functions, we need to devise a new structure, as well as staffs and rules for those services affiliated with the central apparatus.

There must be a similar redistribution of the roles in the trusts, where the number of staff personnel must be reduced by 40 percent during 1987, and this is to be brought about primarily by reducing the number of organizations in the second and third wage rate group and by merging those small-scale trusts which are located in a single territory and which perform similar types of work. Consolidation of construction sector subdivisions will expand the range of problems they can handle as well as the workload of the administrative staff. In view of the autonomy given to the trusts, in the event of production failure, the management would be wrong to put the blame on the ministry or main administration. The collective will hold the management responsible for any losses incurred through erroneous decisions. In order to avoid making a slip-up, the administrative staffs of trusts and SMUs, instead of putting their energies into more artfully drawing up a "petition" for additional resources, they should check out the economics of every production job facing the brigade collectives. In this situation, the trust officials themselves should take serious thought as to whether they have handed over the reins of management to reliable persons, and who exactly holds the post of construction administration director, economist or bookkeeper? The sectorial group economic conferences on the subject of the transition to new management principles are now actively forcing them to think along these lines.

## BETTER WORK EARNS MORE MONEY

For the collectives, the cumbersome and inarticulate administrative apparatus, and the people in the production subdivisions who either do not work to their full capacity or are working in a slipshod manner are all becoming an intolerable luxury in the context of the transition to a new wage system, with its new wage rates and salaries for employees of the national economy's production sectors. In fact, it is not the State Treasury from which the collectives receive the money to pay a higher wage to a skilled construction worker or a properly qualified and highly motivated engineering and technical worker. They need to make do with the money from the wage fund which, in accordance with a fixed standard, is charged per million rubles' worth of construction and installation jobs for all personnel. The question of how this is to be done is up to the trust and the construction and installation administrations themselves to resolve. They presently have the prerogative of approving their staff appointments, as well as the structure of their organizations, and their wage rates and salaries.

In any case, however, there are only two ways to increase the wages of good workers: either move them away from the bad workers by offering them a job in a different place, or by simply paying them extra wages based on achieving labor productivity above the plan indicator. One cannot act according to the principle of once you have the authorization, then raise everyone's wages at once. For now, the collectives and individual workers deserve new wage rates and salaries who prove it by the results of their work. In order to generate savings which will allow the granting of more raises, we need to achieve appreciable results in improving production and working methods, improving the quality of construction and organization of labor, in norm-setting and in controlling construction and the entire investment process.

The reality of the sources which can not only dispense additional wage outlays and justify all other production-related outlays, but which can also make enough profits to settle accounts with the state and have assets left over for further developing their organization, are confirming other measures aimed at improving the economic mechanism for capital construction. The collective can presently save money both by reducing the contracted price for a project by volume planning, making production-related improvements in the project plans and using effective building materials. Turning "turn-key" projects over ahead of schedule is one way to make additional profits.

By applying the new economic mechanism in practice, the first four main administrations changed over to full cost-accounting operation this year. These four administrations are: Glavtruboprovodstroy, Glavsibtruboprovodstroy, Glavvostoktruboprovodstroy, Glavneftegaz elektrosnabzheniye [Main Administration for Oil and Gas Industry Enterprise Special Power Construction], the Soyuzpodvodtruboprovodstroy Production Association and four trusts affiliated with Glavtyumenftegazstroy.

Thus, 41 trusts whose profit margin exceeds 12 percent, are going to exist and develop production on their own revenues.

The same number of trusts having a profitability in the neighborhood of 12 percent (in all--Glavneftegazmontazh [Main Administration for Oil and Gas Refining and Recovery Industry Production Equipment Installation], Glavyuzhtruboprovodstroy, Glavurengoygazstroy [Main Administration for Gas Industry Construction--Urengoy], Glavukrneftegazstroy and Sibkomplektmontazh, as well as 6 trusts affiliated with Glavzapsibzhilstroy, 5 trusts affiliated with Glavtyumenneftegazstroy, 3 trusts from Glavtyumentruboprovodstroy, and two from Glavyamburgneftegazstroy [Main Yamburg Administration for Oil and Gas Enterprise Construction] will, as of the start of this year, practice the principles of self-supporting production [samookupayemost], so that, from next year on they can change over to full cost-accounting and self-financing. Gradually, depending on the performance of the measures aimed at reducing debts and increasing profitability, other subdivisions will be changed over to operation under the new economic management system as well. The first collectives having independence in financing and management will continue along the road to full cost-accounting, which road will be taken sooner or later by the entire sector.

Our efforts will decide when this happens. That is why even the most modern economic mechanism means nothing in and of itself. It is something that is created by people. So if we keep our excellent economic prospects in mind, we will put more energy into reorganizing ourselves. And how do we do this? By first of all not allowing anyone or anything to interfere with our working under this new system, and by acting in accordance with the best interests and needs of our business. Every one of us must study the lesson of truth and not worry about destroying our relations with fellow workers when we point out blunders and faults on their part which hinder our work. Obviously, these are not matters which we would discuss openly at collective meetings.

We have an extremely stepped-up program for this year. And it requires a responsible attitude to the matter at hand on the part of all employees of the oil and gas industry's construction sector, along with competent and rational use of our material and manpower resources. And there exist reserves for increasing our rates and improving the quality of our work within all the labor collectives. We need to make it a rule to start a construction project only where there is a plan of operations and a plan for organizing the construction project, and where there are flowsheets. Collective responsibility for creating safe working conditions needs to be increased at our projects.

The meeting of the CPSU Central Committee attended by General Secretary M. S. Gorbachev, dealt with questions of work quality and the transition to state acceptance of the output of our industrial enterprises, all of which naturally make tremendous claims on the projects we turn over as well. We need to observe strict production discipline, perform our construction work with no deviations from the design, organize a smoothly-operating two-shift working schedule, change over more extensively to the collective contract, which increases the responsibility of all concerned parties for the final results of their labor, and improve the way our socialist competition are organized.



In short, every worker needs to show initiative and give a full day's work. If during the first year of the five-year plan period we tried reorganization on for size, as it were, then this year we will be assessing everything and everyone from the viewpoint of that reorganization. And this is precisely the means which will enable us to quickly use the new economic mechanism and further acceleration within the sector. This will reduce the time spent getting our projects constructed, will drastically reduce production costs and will radically improve the quality of our work.

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## CASPIAN OIL, GAS COMPLEX SITUATION STUDIED

Moscow STROITELSTVO TRUBOPROVODOV in Russian No 1, Jan 87 pp 15-16

[Article by S. B. Yanushevskiy, Minneftegazstroy (Ministry of Construction of Petroleum and Gas Industry Enterprises) Main Production Authority Administration: "The Caspian Oil and Gas Complex: the Tasks, Special Features, Status and Problems of Its Construction"]

[Text] In recent years new hydrocarbon deposits have been explored in the territories from the northern Orenburg area to the Gulf of Kara-Bogaz-Gol and from the mouth of the Volga River almost to the Uzbekistan border. Towards the Mangyshlak Peninsula and Emba fields, which were put into development earlier here, and the relatively young Zhanazholskiy and Kenkiyak oil fields, three more hydrocarbon deposits join up: the Astrakhan and Karachaganak fields, where reserves of gas saturated with condensate and hydrogen sulfide lie at great depths, and the Tengiz Field, with its reservoirs of oil saturated with gas containing hydrogen sulfide.

In the years ahead, these three fields will comprise the basis of the Caspian Oil and Gas Complex. As early as 1990, 80 percent of all the oil and 100 percent of the region's natural gas will be recovered here. This recovery must be accompanied by separation of the liquid and gaseous fractions, by stabilization, treatment and preparation for long-distance transport of the gas condensate, as well as by separation of the hydrogen sulfide from the gas, and its treatment for production of commercial sulfur.

These fields are slated for comprehensive development using advanced methods of field construction, waste-free recovery methods, and the observation of environmental protection measures while at the same time solving social problems.

During the current five-year plan period we need to complete about R3 billion worth of construction and installation jobs, and of them, some R2 billion will be handled by Minneftegazstroy personnel. We will have to construct a total area of about 2 million square m of apartment houses, including over 900,000 square m by Minneftegazstroy personnel, along with a complex of social services, transport, communications facilities etc.

The contemplated integration of recovery and refining procedures, the composition of the recovered products, the region's natural and geographical conditions are all responsible for certain features associated with constructing the Caspian Oil and Gas Complex facilities. The facilities making up the recovery engineering facilities have been substantially expanded with oil refineries and gas processing installations constructed right in the oil and gas fields. Thus, at the Karachaganak Gas Condensate Field, where every cubic m of gas contains over 750 grams of condensate, there are plans to construct plants for injecting dry gas back into formations (the cycling process), which consist of compressor stations rated at 50 mPa of pressure. In order to have waste-free industry, plants for separating and cleaning gas of sulfur and producing commercial sulfur and for light hydrocarbon utilization have to be built at the Tengiz Field. The work constructing the surface field production facilities, which must be completed by 1990 by Minneftegazstroy organizations, amounts in monetary terms to R200 million at the Karachaganak Field, R230 million at the Tengiz Field and R50 million at the Astrakhan Field.

The high hydrogen sulfide content of the gas makes welding and installation work much more difficult, as pipeline joints require a great deal of thermal treatment, and it puts additional qualitative demands on the welded joints.

In order to meet the prescribed deadlines for completing installation jobs the supplying ministries and equipment manufacturers have developed and are implementing measures for delivering complete sets of the components making up automated production facilities and having a high degree of factory readiness.

The complexity of the general construction jobs comes from erecting zero-cycle structures in corrosive saline soils and the need for them to be thoroughly protected from corrosion and rust, laying pipelines in earthen embankments, and using a great many sulfate-resistant cement structures.

The location of the complex's facilities in regions with little available water has necessitated the inclusion of large-scale facilities for the diversion, treatment, pipeline transport and tertiary treatment of potable water in the complex. The water will travel through the Astakhan-Mangyshlak Pipeline.

A great deal of work was completed at the Caspian Oil and Gas Complex facilities during the first year of the five-year plan period. More wells have been connected to the UKPG-16 [Complex Gas Treatment Plant] which operates in the Karachaganak Gas Condensate Field. Over 10 million cubic m of gas per day have been recovered here. The first drilling organizations' base is under construction and housing is going up in Aksay, where bases and residential towns are being built for our construction organizations.

Two gas treatment plants, each of which has a capacity of 3 billion cubic m of gas per year, are being turned over for operation in the Astrakhan Field.

Construction of the Tengiz Field pilot project has been completed. Bases and towns for the use of the construction organizations are being constructed here

as well. Preparatory work has begun for building the TsPS [Central Gathering Station], which is an oil refinery and gas treatment plant for preparing these fuels for long-distance pipeline transport and for sulfur production.

An examination of the progress being made in meeting targets shows that for the first year of the five-year plan period, the total program for construction and installation work has been fulfilled by over 11 percent. Surface production facilities are causing some concern, as they fulfilled the plan for the first year of the five-year plan period by only 4 percent, with the figure for the Tengiz Field standing at only 1.3 percent and the Karachaganak Field at only 1 percent.

These figures are evidence of the lag in our designing of basic production facilities. In fact, in addition to units for connecting wells with grouped oil and gas collecting stations, we need to put three complex gas treatment plants into operation at the Karachaganak Field by the beginning of 1990. They are to be equipped with units for primary condensate stabilization and sulfur cleansing, compressor stations and other structures related to the gas recycling process. The cost of just the on-site construction work for each of these plants comes to about R25 million, which matches the cost of the annual program for the entire trust which is constructing the surface facilities. Two large-scale oil refineries and gas treatment plants, which will include sulfur-cleansing plants, sulfur production shops, water treatment plants, pumping stations and tank farms, need to be constructed in the Tengiz Field by the same deadline. Not only has construction of all these projects not been started, but they haven't even been provided with the documentation needed for them to create a sufficient backlog in 1987. Of the total number of production facilities which have to be put into operation by the beginning of 1990 at the Karachaganak Field at a cost of R200 million and at the Tengiz Field at a cost of R230 million, documentation has been provided, and projects costing R5 million and R20 million respectively have been put into the schedule of operations. Thus, only two years are left to construct these projects, which means that the production sequence for carrying out the construction work be strictly observed. Even if equipment deliveries are made on time, and there is maximal unitization in its use, there is still insufficient time to do the construction and installation work.

And even though the planning institutes explain the delay in issuing the documentation by a lack of initial data from the equipment-supplying enterprises, the client ministries need to take urgent steps to provide a substantial enough backlog in 1987. Otherwise the new economic mechanism, which provides for contracts to be concluded and their timetables to be laid out for the entire construction period will cause, based on the normative deadlines of its duration and the availability of the documentation, a conflict between the term of the contract and the directive deadlines.

Establishment of the Caspian Oil and Gas Complex requires that other problems of no little importance be solved as well. These are technical problems connected to increased anticorrosion and strength requirements for the structures and installation assemblies, supply-related problems stemming from shortages of local materials, ferroconcrete structures, sulphate-resistant cement, special steel pipe and fittings and organizational problems caused by

the need to form new, and strengthen existing, construction and installation subdivisions. In addition, we need more funds to build housing and social services facilities, primarily in Aksay. However, of most concern is the problem of the lack of the production time needed to construct the recovery and refining facilities.

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## COMPLEX PREPARATIONS FOR YAMAL DESCRIBED

Moscow STROITELSTVO TRUBOPROVODOV in Russian No 1, Jan 87 pp 31-34

[Unattributed article under the "Within the Scientific and Technical Council" rubric: "Development of the Yamal Peninsula Calls for Comprehensive Scientific and Technical Preparation"]

[Text] A joint meeting of the Minneftegazstroy [Ministry of Construction of Petroleum and Gas Industry Enterprises] and Mingazprom [Ministry of the Gas Industry] scientific and technical councils was held to discuss the priority tasks of developing gas condensate fields of the Yamal Peninsula.

The problems associated with developing the gas and oil fields of this extremely complicated region were examined at a scientific and technical conference held in February 1986, at the Bureau of the Mingazprom Scientific and Technical Council in April 1986 and at the Technical Conference held in Labytnangi in June 1986. These efforts resulted in the drawing up of a project plan to develop the gas and oil industry on the Yamal Peninsula up to the year 2000. Development of the technical and economic substantiation for construction of the first fields and the Yamal-West gas pipeline transport system has been completed. A draft plan for the Yamal Goal-Oriented Scientific and Technical Program has been prepared.

However, planned priority organizational measures were taken too late. Technical solutions for a great many problems have not been completely developed.

At the meeting in which, along with members of the Minneftegazstroy and Mingazprom scientific and technical councils there participated leading workers from the USSR Council of Ministers Fuel and Energy Complex Bureau, Minmorflot [Ministry of the Maritime Fleet], RSFSR Minrechflot [Ministry of the River Fleet], RSFSR Mingeo [Ministry of Geology], scientific co-workers and specialists from VNIPIgazdobycha [All-Union Scientific Research and Planning Institute of Gas Production], Giprospeetsgaz [State Institute for the Planning of Special Structures in the Gas Industry], YuzhNIIgiprogaz [Southern Scientific Research and Planning Institute for Gas Industry Enterprises], VNIIPKtekhorgneftegazstroy [All-Union Scientific Research and Planning Design Institute for the Technical Organization of Oil and Gas Construction], VNIIST [All-Union Scientific-Research Institute for Pipeline Construction,

SibNIIgazstroy [Siberian Scientific-Research Institute of Gas Construction], NIPIKBS [Scientific Research and Drawing and Designing Institute for Self Contained Modular Construction], VNIIPgidrotruboprovod [All-Union Scientific Research and Planning Institute for Hydraulic Pipelines], Giprorechtrans [State Planning Institute for River Transport], Lengiprotrans [Leningrad State Institute for Transport Planning], SoyuzmorNIIproyekt [USSR Ministry of the Maritime Fleet State Scientific Research Institute for Planning Seaports and Ship-Repair Enterprises], VSEGINGEO [All-Union Scientific Research Institute of Hydrology and Geological Engineering], MGU [Moscow State University imeni M. V. Lomonosov, who discussed a great many scientific and technical and organizational problems associated with the planning and preparing for construction of gas recovery and transport facilities on the Yamal Peninsula.

The conferees discussed the basic technical resolutions used in constructing the Bovanenkovskiy and Kharasavey gas-condensate fields, and which were carried out by VNIIGaz [All-Union Scientific-Research Institute for Natural Gas].

For example, the construction plan for the Bovanenkovskiy Field called for more of the wells producing from Neocomian deposits to be connected for the purpose of bringing up, along with the gas, needed quantities of the condensate from which motor fuel is produced for construction industry needs.

The wells have been drilled in a cluster pattern governed by the configuration of the reservoir. The well clusters in the Bovanenkovskiy and Kharasaveyskin fields will be connected to UKPGs [Complex Gas Treatment Plant] in a reservoir-radial pattern.

In constructing the Yamal Field, a great deal of emphasis is being placed on maximum industrialization of the construction operations. Here we have to use production equipment having a high degree of factory readiness for fully unitized use and equipped with a centralized absorbent regenerating system, completely unitized complex gas treatment plants with an output of 30-35 billion cubic m of gas per year and superblocked complete production cycle pilot plants with an annual output of 50-75 billion cubic m. Systems are being developed which will completely automate our production processes by using standardized microprocessor-controlled equipment. The facilities will be built and operated using the progressive expeditionary duty shift method. This requires that the basic equipment be constantly maintained by employees of the plant which manufactures it and requires that the machine building enterprises deliver entire plants in complete sets.

UKPGs [complex gas treatment plants] located in flood zones will be mounted on pile foundations similar to offshore drilling rigs. Where the geological conditions are unfavorable for siting a UKPG, thermopiles will be used.

Electrical loops 426 mm in diameter and commutators 720 mm and 1,020 mm in diameter will be laid underground on the pile pads with no thermal insulation. To avoid having to use large compensators and in order to ensure that the construction and installation operations flow smoothly we are looking into the possibility of laying the loops in gently sloping 3-to-5-degree angles in an S-configuration and attaching them in the angles of the corner on one side. We

are also studying the problems of laying the electrical loops and S-shaped commutators on the surface in flooded areas after the fashion of underwater pipelines by concreting them or mounting overweights on them.

Plans call for the field to be supplied with electric power in two stages: first from multi-block power stations, and thereafter from the USSR Minenergo system. The field's industrial waste-water will be disposed of by injecting it into disposal wells below the gas deposits.

Taking into account the experience gained in operating the Medvezhye, Urengoy, Vyngapur and Yamburg gas and gas-condensate fields and the need to construct facilities with no permanent maintenance personnel, we are contemplating placing production equipment in quick-assembly enclosed and heated structures.

In order to have a network of reliable roads in the Bovanenkovskiy and Kharasaveyskim gas fields we must start laying them one year prior to constructing the field pipelines and other facilities.

In order to enhance the operational completeness and factory readiness of our projects, and to accumulate experience in manufacturing, transporting and installing larger-sized super-modules for the Yamal Peninsula fields YuzhNILgiprogaz, NIPIKBS, together with VNIIPKtekhorgneftegazstroy have been charged with designing, and Sibkomplektmontazh with manufacturing, a plant for preheating a heat-transfer medium, and weighing up to 600 tons.

To lower the amount of metal and reduce the labor intensiveness of the super block construction buildings and to deliver them along the waterways, Sibkomplektmontazh, along with NIPIKBS will have to prepare proposals for a version with no pontoons, transportable on barges.

Sibkomplektmontazh needs to speed up its experiments in shipping a 1,000-ton super-module on a unit of transport equipment which travels on a cushion of air, and deliver the module to the Yamburg construction area in 1987. VNIPIgazdobycha, NIPIKBS and VNIIPKtekhorgneftegazstroy have been charged with devising promising solutions for complex gas treatment plant layouts and central gas gathering stations of more compact design, like the modular structures on offshore oil production platforms.

For the Yamal-West Main Gas Pipeline System, it was decided to use a gas transport design on the section from km 0 to km 441 with no compressor stations, at a working pressure of 9.8 MPa and with year-round cooling, which keeps the ground frozen. On the section from km 441 to the Ukhtinskaya Compressor Station, the spacing of the compressor stations evens out the 7.4 and 9.8 MPa variations in the gas transport pressures.

It has been proposed that Giprospeftsgaz [State Institute for the Planning of Special Structures in the Gas Industry] and VNIIPKtekhorgneftegazstroy develop a start-up complex for the Yamal-Torzhok-Uzhgorod Gas Pipeline to deliver gas to the Gryazovets Rayon in 1990. Plans call for this gas pipeline to be designed with the pipe delivered with factory-applied insulation. In order to verify the actual fitness for this pipe for use in the conditions of the Yamal Peninsula, test-range trials will be conducted on pipe sections at a pressure



of 9.8 MPa and at temperatures of -20 and -25 degrees C. The tests will be carried out during 1987-1988 at an experimental VNIIST base at the Moscow Oblast's Lvov Compressor Station.

VNIIGaz, VNIIST and the Institute of Arc Welding imeni Ye. O. Paton have been entrusted with full-scale testing of pipeline failure arresters in 1987 and, based on the results of these tests they are to make design recommendations to Giprospeftgaz regarding these devices, which will be placed in the particularly complicated sections of the gas transport system.

Basically, the recommendations for the main gas pipeline system call for laying the pipeline underground, ballasting it with ferroconcrete overweights, frozen-in anchors and soil, using nonwoven synthetic materials, and also laying it with no ballasting. All pipeline-laying methods must be tested on experimental sections. All sections passing through areas with buried ice will be tested by laying them either semi-buried or on the surface, using nonwoven synthetic materials, as well as by laying them on the surface with no earth banking.

Giprospeftgaz, VNIIGaz and VNIIST have been entrusted with working up suggestions on the feasibility of laying the 0-441 km pipeline section underground with constant cooling of the gas and no ballasting, this section over a single winter and constructing the cooling station at the main compressor station as rapidly as possible.

It has been decided to install valving every 50 km and to use thermopile pipeline supports.

At river crossings, the pipeline is to be laid at great depths underground with no thermal insulation.

We plan, when designing the compressor stations, to work up a version of a new circuit-free layout for completely unitized and automated compressor stations which will have all the pipelines working on a single operating schedule, as suggested by Giprospeftgaz. The scientific and technical councils have accepted the proposals made by VNIIST, VNIIGaz, Giprospeftgaz and YuzhNIIGiproftgaz to construct experimental main pipeline sections to use in developing designs while the Yamal Peninsula Gas Pipeline is being built and operated. Mingazprom and Minnefteftgazstroy technical administrations have been entrusted with developing a program of experiments on these sections.

VNIIST is to develop and transfer to Giprospeftgaz construction and testing procedures for main gas pipelines with a working pressure of 9.8 MPa in the Yamal Peninsula's conditions, as well as instructions on the rated strength of the pipelines which will be used to transport gas at below-zero temperatures through areas with permanently-frozen saline soils, and where the pipeline is to be laid both below and above ground.

Ukhta, Nadym, Novyy Urengoy, Tyumen, Belyy Yar, Igrim and Komsomolskiy are to be used as primary base cities and settlements for utilizing the expeditionary duty-shift (duty-shift) method. The cities of Povolzhye and Ural will be used as additional settlement cities. Provision has been made for the construction

of industrial bases, housing and social and cultural facilities to be concentrated in these cities, with maximum use made of the existing industrial and social infrastructure.

It has been decided to place a subdivision for supporting the pioneering bases and storage terminals, equipment set-completing bases and a repair facility in the Labytnangi Rayon and the Obsk station. The total population of the settlements around these bases and terminals must be kept within 12,000 to 15,000 residents, and wooden Tura-series dwellings will be used as housing.

The project plan to develop the base cities and build the field settlements will be implemented in integrated fashion, based on the needs of Mingazprom and Minneftegazstroy. It includes the development of a system of workers' social welfare and cultural services, and is based on the transport and dispatcher support for the expeditionary duty-shift method. During initial field development, duty-shift workers will usually be transported by air.

The plan for organizing the preparatory construction period is to be made a separate section of the planning operations, and includes the development of technical documentation for the pioneer base facilities, duty-shift settlements, transport, the construction industry and other facilities.

A transport plan has been accepted for the initial development of the Yamal Peninsula.

In order to ensure that the construction machinery complexes operate reliably, VNIIPKtekhorgneftegazstroy and VNIIST have been entrusted with preparing appropriate proposals for equipment to be made up in batches based on its technical adaptability, its ability to operate in temperatures as low as minus 60 degrees C., on its standardization needs and its reliability and versatility. They are also to set up a repair and operations base.

In order to improve efficiency in the efforts to develop the Yamal Peninsula Field, it is considered advisable to set up an intersectorial Minneftegazstroy and Mingazprom Coordinating Council with the participation (with their agreement) of representatives of the USSR Council of Ministers, the RSFSR Council of Ministers, USSR Gosplan, The Tyumen Oblispolkom, the USSR Academy of Sciences, Mintransstroy [Ministry of Transport Construction], Minmorflot, RSFSR Minrechflot, the Ministry of Civil Aviation, Minenergo [Ministry of Power and Electrification, USSR Minsvyazi [Ministry of Communications] and other concerned ministries and departments.

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98

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